

NOVEMBER, 1959

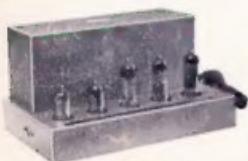


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3305	4875	6350	8007
3320	4955	6406	8009
3432.5	5000	6410	8010
3450	5020	6440	8012
3460	5095	6450	8014
3467	5166	6473.33	8015
3515	5180	6497	8075
3522	5205	6506	8171
3532.5	5205	6522	8175
3560	5385	6540	8220
3630	5435	6550	8290
3840	5450	6583	8392
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EDITORIAL



Television Interference and the Amateur Service

Prior to the introduction of the Australian television service the W.I.A. envisaged the probability of interference to viewers by Amateur transmitters, other frequency users and electrical apparatus generally. With this in mind it sought the opportunity to submit information to the Royal Commission on Television.

In actual fact the number of cases of interference by Amateur transmissions have, until recent date, been very few. However, over the past few months there has been quite an increase in t.v. interference, the majority of cases being due to 50 Mc. transmissions and also from v.h.f. and h.f. transmissions in fringe areas. The problem is essentially one of public relations—the manner in which the Amateur approaches the problem and the way in which the viewer receives his efforts to eliminate the interference.

There are two areas of interference—(a) areas essentially serviced by the existing television transmitters, and (b) areas which we call fringe areas not specifically serviced by the existing television transmitters. There are many forms of interference, of course, but our own transmissions which interfere with t.v. is our particular problem. As far as we are concerned our transmitters must be t.v. proofed, free from harmonic radiation and generally constructed and operated in such a manner that radiation of other than the desired frequency signal is not possible. That's fair enough and is in line with the regu-

lations governing the operation of Amateur transmitting stations.

But, unfortunately, the problem does not end there in actual practice, for under certain conditions interference is occurring—particularly around 50 Mc.—which is attributable to lack of selectivity in the t.v. receiver "front ends" rather than by reason of incorrect operation of the transmitting equipment. The problem is difficult enough in areas essentially serviced by the transmitting stations, but is greatly aggravated in fringe areas where the received t.v. signal is weak.

It is quite a problem to solve because on the one hand the public spend upwards of £150 in serviced areas and upwards of £400 in fringe areas and naturally enough consider they have the right to obtain interference-free reception; on the other hand the Amateur spends many hundreds of pounds and, providing he is satisfied that his equipment is operating within the conditions governing his license, he rightly considers he should be able to pursue the hobby in which he has participated over the years when there was no television service. In both cases the Postmaster-General's Department accepts a license fee (including fringe areas) but in the case of the Amateur it is £1 for some 3,800 license holders compared with £5 for thousands of t.v. viewers.

For the Amateur to adopt a "stand-over" attitude as much as to say, "I was here first" is fundamentally and democratically wrong. On the

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Modifying the AR8 Receiver

G. F. JENKINSON,* VK3ZFA

THE purpose of this article is to describe some modifications to the well known R.A.A.F. AR8 Aircraft Receiver which the author has carried out and which have very considerably improved the performance. The main modifications are:-

- (1) Addition of a noise limiter.
- (2) Alteration of the audio system.
- (3) Addition of a magic eye and/or S meter.
- (4) Changes of valves in the h.f. unit.
- (5) Use of a Q multiplier.

DETAILS

The first step is to disconnect the three front-panel controls which are not required for Amateur use. These are: "Traffic-DF-Sense" switch, "Sense-Resistance" and "Bearing-Reciprocal" switch. The leads for the latter two can be disconnected and put out of the way, but the leads to the rotating contact and fixed contact which is used in the traffic position must be lifted clear and joined directly together. The "Traffic-DF-Sense" switch is not used in the following modifications, but can conveniently be used as a transmitter/receive switch.

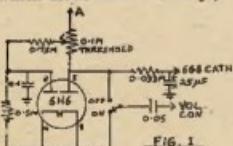
The two-pin outlet below the "M/F AE Tuning" knob is disconnected, and can be used as a speaker socket.

The bakelite aerial socket is replaced by a v.h.f. coaxial socket to allow coaxial cable to be used. However, this socket is such that a normal "banana" plug can be inserted if required.

The two power cable sockets can be conveniently removed and the lower hole be used with a more convenient type of power plug. The upper hole can be used for a magic eye (see modification 3).

(1) NOISE LIMITER

This uses a 6H6 (or 6AL5) valve (see Fig. 1). This valve and most of the associated components can be mounted on a small bracket below the m.f. switch (band-change) and coils. The heater power for this valve and also the magic eye were obtained, in the author's receiver, from the supply which had originally fed the 6X5 front-end protection valve. (The heater line was left wired for 12V. and thus the 6H6 plus 6U5 magic eye drew 0.6 amp. and made up for the removal of the 6X5 which alone drew 0.6 amp.)



The "Bearing/Reciprocal" switch was used for the noise limiter on-off switch, and the "Sense-Resistance" pot. was replaced by one of 100K ohms and used for the threshold control.

*St. Brighton Beach, S.S. Vic.

It should be noted that for good noise limiter performance the cathode bypass of the 6G8 audio amplifier should be increased from its original value of 0.05 μ F. to 10 or 25 μ F.

The connection to point A of Fig. 1 (i.e. to the bottom of the secondary of L.F.T.4 (T3) must be made to one of the terminals at the top of this transformer, as the transformer contains some resistors and capacitor in its cans, and the bottom terminals connect to point A through a resistor. An ohmmeter reading between 6G8 pin 5 and one of the "unused" terminals on the top of the last I.F., which reads 7 ohms, will give the terminal to use.

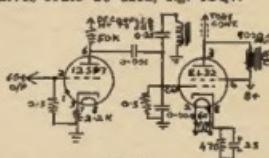
A coax cable is run from the point found above, through a hole drilled in the chassis for the purpose, to the threshold pot. on the front panel.

The shielded lead to the tag, one around clockwise from the tag connected to the plate of the last 6J7G on the last I.F. transformer, should be disconnected (open-circuited) at this point or at the other end of the shielded cable.

This noise limiter circuit is the one which is used in the AR88 receiver and seems capable of giving very good results.

(2) AUDIO MODIFICATIONS

To make up for a loss of audio gain caused by the noise limiter, the author added another audio stage after the 6G8. This was a 12SQ7, but with rearrangement of heater supplies other valves could be used, e.g. 6SG7.



The amplifier (see Fig. 2) is mounted on the socket previously occupied by the 6X5.

To drive a speaker more efficiently, the 6J7 output tube was changed to an EL32. The output transformer used for the 6J7 was removed completely. B+ and plate leads from the EL32 were run, in the author's receiver, to the loop serial socket. (The output transformer was mounted on the speaker.)

The EL32 was chosen for the output valve because this requires only 0.2 amp. heater current, and thus the addition of a 60 ohm resistor across the heater socket connections was all that was needed to balance the heater current back to the correct value. (Circuit is given in Fig. 2.)

An audio filter was also added to the audio section (see Fig. 2). The choke used was a small speaker transformer with the paper removed from the air gap in the core and the plates interleaved. The value of capacitor is best

found experimentally. The filter in the author's receiver is a high-pass type with a low frequency cut-off of about 200 cycles. This improves the readability of weak signals.

(3) MAGIC EYE AND/OR S METER

A magic eye (6U5/6G5) was mounted behind the spare hole on the front panel which resulted from the removal of the original "power" and junc. box" sockets. The 6U5/6G5, together with the 6H6 noise limiter, made up the heater current to the value originally taken by the 6X5. For circuit see Fig. 3a.

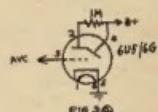


FIG. 3a

While the magic eye was useful, it was felt that an S meter would be more valuable. A simple meter measuring plate current was considered but rejected because it read backwards and only a small section of the scale could be used. However, a glance at Fig. 3b will reveal that by using about three resistors and a pot, plus the meter, the S meter is forward reading, can be zero set to any desired level, uses the full scale, and can be set to any desired sensitivity (e.g. no signal reading zero, and full scale reading at S9, or full scale at S99!!!)

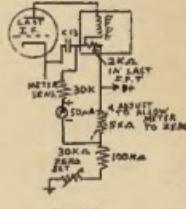


FIG. 3b

The meter used was a 50 μ A. temperature gauge. However, any sensitive meter could be used with slight resistor changes. The meter was mounted away from the receiver.

The zero-set pot. was mounted at a convenient point at the back of the receiver.

(4) H.F. UNIT

It was felt that modern valves in this unit would improve the performance, and this was found to be the case.

Adaptors for plugging the miniature valves into the octal sockets were made by mounting the appropriate miniature socket on an octal plug (e.g. a discarded valve base).

Where the grid lead originally went to the valve cap, a flying lead was run from the adaptor to the appropriate tuning gang lug.

R.F. Stage.—The 6U7 can be conveniently replaced by the noval valve 6BY7 which has very similar operating conditions to a 6U7, but a higher mutual conductance, and lower noise figure. No circuit changes are required.

Table of connections:	
Octal Plug	Noval Socket
Pin	Connect'n join to Pin
1	—
2	Heater
3	Plate
4	Screen
5	Suppressor
6	—
7	Heater
8	Cathode 6, 1, 3, Cap Grid 2

Mixer Stage.—This is a 6A8 and in the author's receiver this was changed to a 6AJ8/ECH81. A 6AN7/ECH80 could also be used, but has different socket connections. Once again, no circuit changes were found necessary.

It should be noted that the signal grid in a 6A8 is grid 3, but in a 6AJ8, grid 1.

Table for 6A8—ECH81:	
6A8	ECH81
Octal Plug	Noval Socket
Pin	Connect'n join to Pin
1	—
2	Heater
3	Plate
4	Screens
5	Osc. Grid
6	Osc. Plate Grid ignore
7	Heater
8	Cathode 9, 8, 3, Cap Grid 2

Oscillator.—In the author's receiver this was a 6V6, and trouble was experienced with the oscillator not working reliably at the low end of range F. The circuit was checked and many 6V6s tried, without improvement. The trouble appeared to be due partly to low heater voltage. The oscillator was then changed to a 6AS6 (or 6AK5) (both of which are miniature 7-pin types). This made the oscillator perform very well on all h.f. bands.

The only circuit change required is to connect a 25 ohm 3-watt resistor across the heater pins (2 and 7) inside the receiver itself to make up for the difference in heater current between the 6AK5 or 6AS6 (0.175a.) and the 6V6 (0.45a.). With no other circuit changes the 6AS6 is running close to maximum ratings, but seems quite satisfactory.

Table for 6V6—6AS6 (or 6AK5):	
6V6	6AS6
Octal Plug	Min. 7-pin Socket
Pin	Connect'n join to Pin
1	—
2	Heater
3	Plate
4	Screen
5	Grid
6	—
7	Heater
8	Cathode 2 and 7

Do not forget the heater resistor!

The receiver should then be realigned and the split rotor plates of the oscillator section of the tuning gang bent slightly if the tracking is found to be out between dial reading and frequency received.

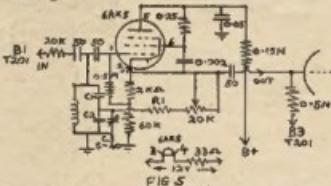
Note.—The intermediate frequency is 755 Kc. and thus to receive b.c. band stations near this frequency, the i.f. must be set accurately. It is suggested that the signal generator frequency be checked against the nearest b.c. station in frequency, e.g. 3LO on 770 Kc. A list of b.c. station frequencies is contained in the W.I.A. Call Book.

(5) Q MULTIPLIER

Generally this is a regenerative device somewhere in the i.f. strip, the amount of regeneration being controllable. Just before oscillator occurs, the device exhibits a very narrow peak in its frequency response, and if coupled into the i.f. strip can be used to peak or minimise a narrow band of frequencies.

For the AR8, a transistor Q multiplier was first tried. This was coupled to the receiver by only a single coaxial cable which went to the mixer plate. This gave a fairly narrow notch in the response. It was, however, rejected, mainly because it lowered the receiver gain considerably.

A valve circuit (Fig. 5) was then tried. This worked very well, exhibiting a very sharp peak just before oscillation occurred. This peak was sufficiently narrow to make phone copy unpleasantly deep and unintelligible. By reducing the feedback, the bandwidth could be increased to anything required. Also, with the Q multiplier set for good selectivity, the receiver gain was greater than without the Q multiplier, i.e. the addition of the Q multiplier leads to increased selectivity and gain.



The connections to the Q multiplier were taken to the top of the first i.f. transformer (T201). The lead into the Q multiplier (which was built in a small "jack box" and sat on top of the receiver) was taken from the top contact of T201, which went, previously, to the 6U7 1st i.f. grid. (This coil connection is contact B1). The output of the Q multiplier was taken by another length of coaxial cable straight to the 1st i.f. amplifier cap, and to give a d.c. return to this valve grid, as well as a.v.c., a 1 meg. resistor was run from the grid cap to contact B3 of T201. This contact goes to the cold end of the secondary, directly, and thus there is decoupled a.v.c. voltage at this point. Contact B3 is two positions clockwise round from B1, B2 being just a hole.

The Q multiplier must be the first i.f. valve. Resistor R1 is chosen so that oscillation occurs when most of the 20K ohm pot. is shorted out. (R1 is 2K ohms to 20K ohms.)

The tuning coil is chosen, along with C1 and C2 (which are about equal in value) to tune to 755 Kc. with capacitor C3 at mid position. The coil used was one of the windings of an old wooden-

cored 455 (?) Kc. i.f. transformer. The frequency can be checked by a g.d.o. If the g.d. oscillator will not tune down to the required frequency, a simple way to use it is to connect a spare tuning capacitor across the pins of the coil by twisting the wires from the capacitor around the appropriate coil pins. This capacitor can then be tuned for a dip as usual and the frequency be determined by locating the signal on a receiver and reading the receiver frequency. (Make sure the receiver is not tuned to a harmonic of the grid dip oscillator, by listening on frequencies which could give harmonics on the observed frequency).

To prevent disturbing the main heater line, the Q multiplier was run from 12v. through a 33 ohms dropping resistor.

Note that the AR8 normally has no d.c. return to chassis for the heaters.

BOOK REVIEW

"G.E. TRANSISTOR MANUAL"

This booklet contains information in the following three topics: (1) Semiconductor device fundamentals and principles of application (approx. 60 pages); (2) Typical, practical circuits (approx. 80 pages); (3) Specifications of G.E. devices (approx. 50 pages).

The semi-conductor devices discussed are junction rectifiers, simple junction transistors, unijunction transistors (double base diodes), controlled rectifiers (hook transistors), and tetrode transistors.

After a disappointingly brief introductory chapter on "Basic Semiconductor Theory" the various devices are discussed in terms of their application. This is, of course, a sensible enough classification but, unfortunately, the obvious multiplicity of authors results in differing standards of presentation from one chapter to the next. Even more important is the failure to integrate the treatment of the various devices in terms of those fundamental factors which are common to all. For example, on page 15 under "Biasing", the temperature dependence of I_{C0} is mentioned without any explanation or elaboration, whilst forty-nine pages later under "Transistor Switches" there appears a very worthwhile discussion of the origin and rate of increase of I_{C0} . This chapter on "Transistor Switches" is the best and most complete section of the book but is not likely to be of great use to people interested in communication engineering.

The chapters on "Basic Amplifiers", "Hi-Fi" Circuits, and "Radio Circuits" are little more than collections of practical circuits which have been prepared with "reasonable care . . . although no responsibility is assumed . . . for any consequences of their use." These chapters will be of little use to the man who desires knowledge on the essentials of transistor operation and basic circuit technique.

Furthermore, the 50 page specification section will be of very limited use to Australian readers.

This Third Edition published by the General Electric Company, Semiconductor Products, 1224 West Genesee St., Syracuse, New York, is priced at £1 Australian.

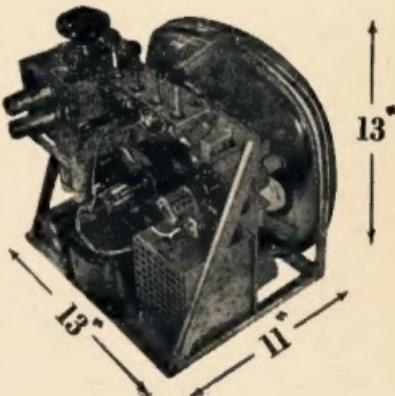
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THE GELOSO RECEIVER FRONT END UNIT

WHEN ever a new Amateur receiver hits the Australian market, it always creates a lot of interest and curiosity. In this case the interest is two fold, as R. H. Cunningham Pty. Ltd. have not only released a new receiver, the Geloso G209-R, but also in kit form the col box tuning condenser with dial and drive mechanism, serial trimmer, oscillator trimmer, and a 4.6 Mc. output transformer of this receiver. This kit can form the basis of a good receiver, either as a converter fed into any receiver that tunes 4.6 Mc., or as a front-end for a home-brew 1f. strip, detector, etc., and audio.

The Publications Committee have recently had the opportunity of testing one of these kits which had been built into the converter unit described herein. We must admit that this is one of the more pleasant duties associated with producing the magazine.

Of course the first question everyone will ask is just how well does it perform? Sensitivity figures have been published on the 209-R receiver and naturally these figures apply also to this converter. Unfortunately, figures of this kind cannot always convey just how signals sound coming through the speaker. After an extended test on ten metres (how does your receiver sound on ten?), we can definitely say that it is in the "hot" class. Conditions on the band were anything but good. However, the signals there stood out well with

The actual dial drive is one of the neatest ideas seen for a long time. The shaft from the knob is actually a 5 to 1 ratio planetary drive. This is then coupled to a 4-inch drum by means of a nylon cord. One small criticism of the tuning is the size of the knob. One about twice the diameter is needed to give the right feel.

We fed the converter into receivers ranging from a 122 set and a Type 3 to an AR88. Naturally the selectivity characteristics and gain varied from set to set, but overall performance was essentially the same with all.

To sum up, several of the committee members were heard to comment, "You can leave one in my shack any time."

Although only the component parts are available at present, a complete kit for the converter unit, including power supply, chassis, cabinet, etc., will be obtainable at a later date.

We are indebted to R. H. Cunningham Pty. Ltd. for the opportunity of testing this fine unit.

PUBLICATIONS COMMITTEE

*

MANY readers of "Amateur Radio" have, during the past two years, built the famous Geloso Exciter units into a transmitter and, at reasonable cost, have obtained excellent results with a "professional" finish. Now available in this country is the Geloso Receiver Front-End Unit, which is as used in the G209-R Double Conversion Superhet.

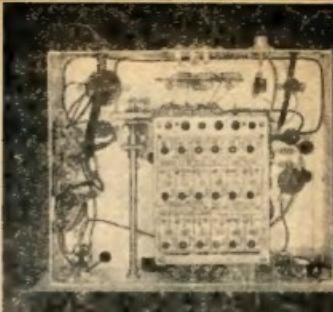
This unit consists of the following parts—

- (1) Coil unit—type 2819;
- (2) Dial assembly—type 1649;
- (3) Variable gang condenser—type 2791;
- (4) 1f. Transformer—type 701/A;
- (5) Aerial trimmer condenser—type 6475;
- (6) Oscillator trimmer condenser—type 80173.

The coil unit itself is ready wired with valve holders, resistors, condensers, wavechange switching, etc., only requiring external connections for h.t., l.t., gang condenser, i.f. transformer, a.v.c. and serial. The i.f. is at 4.6 Mc. bringing the unit on to almost any shortwave receiver, and each Amateur band is spread to give the following frequency coverage:—

10 Metres	28.0 to 30.0 Mc.	Band 1
11 "	26.0 to 28.0 "	" 2
15 "	21.0 to 21.5 "	" 3
20 "	14.0 to 14.4 "	" 4
40 "	7.0 to 7.3 "	" 5
80 "	3.5 to 4.0 "	" 6

A trimming adjustment is provided for every coil in the unit and is clearly marked with adjustment frequency figure. The unit can, if desired, be built directly into a receiver using a second mixer to convert to, say, 465 Kc., or may be assembled as a converter, and fed out at 4.6 Mc. to a receiver such as a BC348, BC342, or AR8.



The dial mechanism provides a 72:1 reduction from an epicyclic motion with a nylon cord drive. The cord is spring loaded, giving positive action and preventing backlash. No cut-and-try method of adjusting the drive cord is necessary as the exact length is supplied correctly terminated on the loading spring.

The size of the coil unit is approximately 5½" x 4" x 3½" deep and is designed for mounting below a chassis. The dial is 8½" x 5" and the minimum panel height requirement for the assembly is 8½".

THE CIRCUIT

This uses modern type valves—6BA6 (r.f. amplifier), 12AU7 (oscillator and buffer) and 6BE6 (mixer). One interesting feature is the employment of a double triode (12AU7) in the oscillator circuit. The first half is run as the oscillator and the second half as a cathode follower buffer stage. This prevents any pulling of the oscillator frequency by the serial and mixer circuits. Fig. 1 shows the complete circuit required to build a compact converter which will impart to an old receiver modern performance, with an excellent signal-to-noise figure of better than 6 db. for 1 microvolt input.

The power requirement of the unit is 230 volts at 48 mA., with 150 volts and 8.2 volts a.c. of 1.65 amp. From Fig. 1 it will be seen that the 150 volt stabilised supply may be obtained from an OA2 valve.

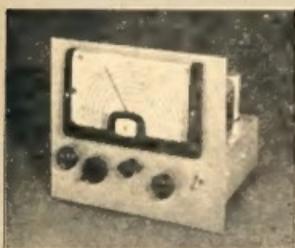
A buffer stage (6C4) is included to provide a low impedance cathode follower output and permits a convenient connection to the antenna circuit of the following receiver by means of coaxial cable (maximum length, 80 inches).

An r.f. gain control is provided on the unit, consisting of a variable negative voltage of -1.7 to -20 volts.

An interesting feature of the circuit is the provision of an additional wafer at the rear of the coil unit for adjusting the screen voltage to the 6BA6 r.f. amplifier valve. It will be appreciated that the performance of most valves is better at 3.5 Mc. than at 30 Mc. and this ensures that the sensitivity of the unit is the same on every band, and is invaluable for correctly calibrating an S-meter.

MAKING THE COMPLETE CONVERTER

The design using the Geloso coil unit and dial assembly shown in the photographs was based upon a 18 w.g. aluminium chassis 10" x 8" x 3½" deep and front panel of 11" x 9½". The coil



Prototype of the Geloso Receiver Front End Converter Unit.

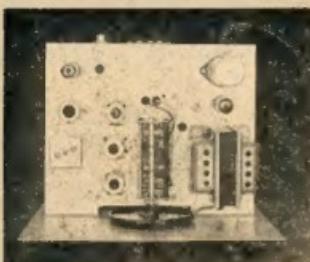
Controls (left to right): R.F. gain, tuning, band selector, serial trimmer, s.r.t. switch.

little background noise. This test was made on a wire antenna and not a beam. Frequency stability was adequate for good s.s.b. reception on 10 and 15 metres. Naturally though, this is dependent on just how well you build this unit in, and how stable is the receiver the converter is fed into.

For the sideband enthusiasts the tuning rate will be of interest. The following figures apply to Australian frequency band allocations: 80 metres, 19 turns; 40 metres, 15½ turns; 20 metres, 26½ turns; 15 metres, 26 turns; 11 metres, 4 turns; and 10 metres, 32 turns.

unit is mounted below chassis, cutouts are made for the valve-holder skirts to protrude through the top of the chassis. Holes are required for the coil unit connections to pass through the chassis to the gang condenser, mounted on top of the chassis.

The general layout of the other components can be seen in the photographs and their exact position can be determined by the user.



ASSEMBLY

First mount and wire all components with the exception of the coil unit, tuning condenser, dial and front panel. The epicyclic drive can now be mounted on a bracket and before screwing the bracket under the chassis slip two turns of drive cord over the drive spindle and locate them around the thin section of the spindle, immediately in front of the brass bush. Mount tuning condenser on feet and secure to top of chassis. Fit in coil unit and antenna trimmer on bracket under chassis. The remainder of the wiring can now be completed. The front panel can be secured in position and the dial mounted. Before fitting the escutcheon to the dial, mount the dial light assembly and push the pointer into position on the tuning condenser spindle. Make sure that the pointer is horizontal at just below 28.0 Mc. with the condenser vanes fully in mesh. Check that the dial drum is correctly located on the condenser spindle and that the pointer will turn 180°.

TESTING AND ALIGNMENT

Check all wiring and fit valves. Connect the output of the converter to the aerial input of the receiver and tune to 4.6 Mc. Connect the converter to mains and switch on.

At this stage it would be advisable to check voltage points in the converter. H.t. +230 v., stabilised h.t., screen 6BA6 network, and heaters.

All coil units are checked by the manufacturer before despatch and are usually not very far off. Alignment can best be accomplished by using a signal generator, but this is by no means an absolute necessity if a local transmitter can give a few "spot" frequencies on different bands—or a good station frequency meter is available. In the latter case, an aerial should be connected to

the aerial socket in place of a signal generator.

Commence by feeding 4.6 Mc. into the converter and peaking the i.f. transformer, then adjust the 4.6 Mc. trap for maximum attenuation. The remainder of the alignment procedure is quite straight forward as all the spot alignment frequencies are clearly marked at their respective trimmers or coil slugs on the underside of the coil unit.

Alignment should be done with the antenna trimmer in the mid position.

A.V.C. CONNECTION

If the user so desires, a.v.c. from their existing receiver may be connected to the converter. This can be accomplished to give maximum results by

retaining manual r.f. gain on the 6BA6 r.f. stage and applying a.v.c. to the 6BE6 mixer.

CONCLUSION

This new receiver front-end will improve the performance of many existing receivers. It combines the advantage of a double conversion circuit with improved signals-to-noise figures and increased sensitivity. The bandspread will really be appreciated by the operator with that good "surplus" receiver which lacks the bandspread on Amateur bands. So, with the availability of this unit, we can get performance at least equivalent to, if not better than, many modern communications receivers.

—H. V. Amor, VK3RD.

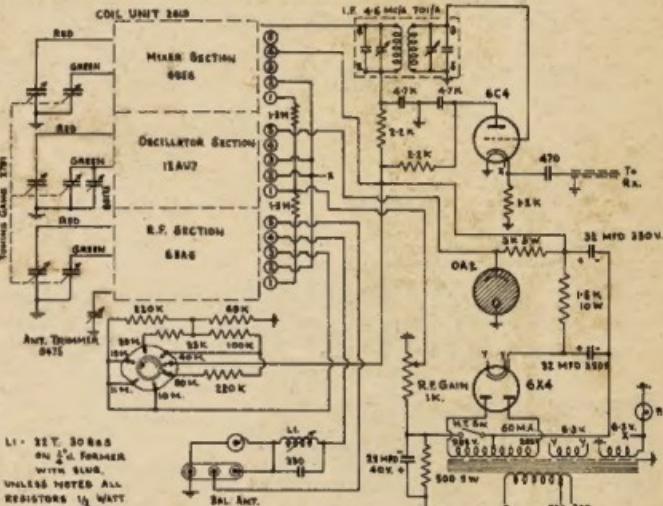


FIG. 1.
The modern practice of leaving the oscillator running during stand-by periods is a suggested amendment to the above circuit.

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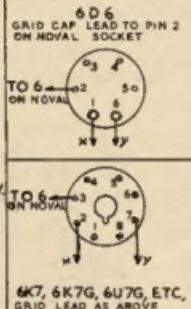
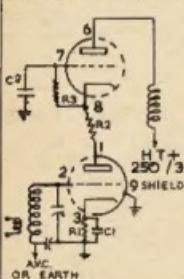
The S-9'er Mark II.

THE magazine "CQ" in May 1956 carried an article on the S-9'er, which used a 9-pin miniature t.v. cascode twin-triode, the 6BK7A, to replace and plug into the r.f. stage of any receiver using a 6SK7 or the like. This was a cathode coupled amplifier which gave excellent results noisewise, with some loss of gain and a few reports of instability.

"CQ" for May 1959, pages 44 and 45, introduced the S-9'er, Mark II., written by K5JXK, which converts the pentode r.f. stage into the cascode the twin-triode tube was designed for. Gain in this case was claimed to be equal to the replaced pentode, in fact in some cases better, and the stability was quite good.

I made up both of these models and gave them a solid try-out, and without any doubt the Mark II. version more than lived up to the claims made for it. It has been tried in at least a dozen receivers, both commercial and home-brew, and the gain in at least two-thirds of them was increased by 8 db, and the improvement in signal-to-noise was immediately apparent on them all. Some instability was noticed in four of the receivers, but it was immediately cured by earthing the valve can, as suggested in the article.

CIRCUIT DIAGRAM



Base and socket connections are bottom views. When replacing a 6D6, find which heater pin is earthed and connect to pin 9 on naval socket. The same applies to types 6KYG, 6UTG, etc., and for 6SK7 metal. If pin 1 is earthed use this instead. Insulate all leads between naval socket and base with spaghetti sleeving.

Component values: R1—100 ohms $\frac{1}{2}$ w, carbon; R2—33 ohms $\frac{1}{2}$ w, carbon; R3—470K ohms $\frac{1}{2}$ w, carbon. C1 and C2—0.001 μ F. disc.

Components of the Mark II. include three resistors, two capacitors, a tube socket, an adaptor base and of course the tube. Any of the cascode designed twin-triodes will work well in the circuit, such as the 6BK7A, 6BQ7A, 6BZ7, and the 6BS8. This latter tube gives the best results mainly because of its freedom from cross-modulation and its extra gain.

With respect to the circuit, whilst measurements will show the difference between a coil-neutralised cascode and one using merely a 33 ohm resistor between stages, no difference can be detected in on-the-air tests and for that reason and also to simplify the adaptor, the resistor was used.

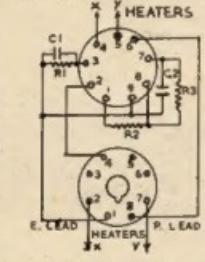
It will be noted from the circuit that the cathode of the first section is returned directly to ground through pin one of the octal-based socket, thus removing the r.f. stage of the receiver from the normal gain control line and converting the gain control into a purely i.f. gain control, resulting in still more signal-to-noise ratio improvement.

If manual control of the first stage gain is desired, resistor R1 and capacitor C1 can be omitted and a lead run directly from pin three of the naval socket to pin five of the octal base, which will retain the original r.f. cathode circuitry. I personally tried both these connections and felt that the difference, if any, was not worth bothering about, and therefore the saving of two components is worth considering.

Well, now the pretence is over. This is not a technical article in the true sense, it is simple a re-write of an article in "CQ" which is without doubt a winner and nothing now remains but to give a few helpful hints gleaned from my actual experience with the converter in the thought that it may help to answer any remaining queries that might be in your mind.

Not all twin-triode tubes are worth using in the converter, for example the

ADAPTOR DIAGRAM



In closing, I would like to say that I don't want to talk you into making this converter up if you are satisfied with your present receiver's r.f. stage. If, however, you are looking for an improved signal-to-noise ratio, with no loss in gain, and a chance of some increase in gain, then this is it. The only catch to the whole set-up, as I see it, is whether or not you can get hold of a suitable tube. All of the tubes mentioned are listed in the latest tube manuals, but as they explain, that does not mean they are as yet available.

My thanks to K5JXK for a very interesting article and the opportunity to spend a number of pleasant hours testing the truth of his assertions.

—Warwick W. Parsons, VKBPS.

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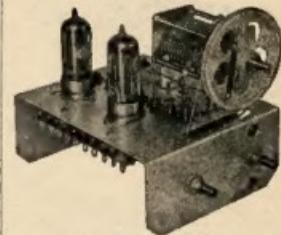
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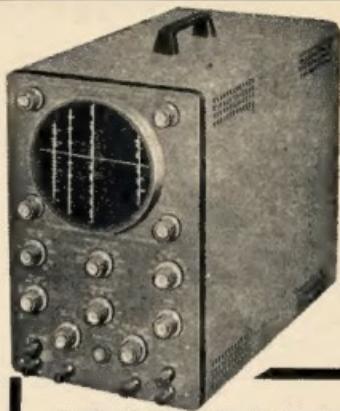
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GENEVA REPORT

SINCE my last report to you I have every reason to believe that the delegations at the Administrative Radio Conference in Geneva have been working very hard in pursuit of satisfactory agreements to all the problems being raised by the various countries—and there are plenty of problems.

As I mentioned previously, a great amount of information from the Conference is of a sub judice nature and I must ask you—as Australian Amateurs and members of the Wireless Institute of Australia—to believe me when I say that everything possible is being done at Geneva by Amateurs representative of many countries to maintain the Amateur frequency allocations insofar as that is possible against the extreme pressure from the commercial interests.

I can say this quite definitely, that the finalising of frequency allocations is a continuous process in which the entire spectrum is first of all reviewed in Committee Four (the Frequency Allocation Committee) and then sent to various working groups which study small portions, iron out differences and attempt to accommodate as many proposals as possible. From reading the pages of reports sent back to me from John Moyle, it is becoming increasingly evident that the pressures for more frequency space by all services in all countries is becoming greater as the Conference progresses and the full story will not be really known until the Conference is over and our representative returns to report personally to us.

It is quite useless, and most unwise, to make public a running statement on the progress of the various committees and working groups because the same ground is gone over many times and the decisions of any one group are often completely upset and reopened at a later stage. Often lines of thought develop into discussions of a highly confidential nature in which the most delicate balances and confidences are involved. It is quite evident that the full picture will not be known until the end of the Conference, so it is not possible to forecast the final result or give final information at this stage.

However, initial decisions indicate that Amateurs in Region III. will probably lose 100 kc. off the top end of the 3.5 Mc. band, but the resultant band 3.5 to 3.7 Mc. will be exclusively an Amateur assignment whereas before it was shared with fixed and mobile services.

The 7 Mc. band is being hard pressed by all countries in all Regions for an exclusive Amateur assignment 7 to 7.1 Mc. and it is probably true to say that a footnote will be added that it is an exclusive assignment to the Amateur Service on a world wide basis and that countries will remove existing transmissions from this part of the spectrum. If this is the final result—and this is by no means certain—then we can expect to be in a better position than we were prior to the Conference.

An international telegram from John Moyle a few days ago stated that Australia has agreed to withdraw its proposal to reduce the 14 Mc. band currently used by the Amateur Service on a world wide basis. This is not a surprise because we forecast before the Conference commenced that it would quite possibly never get through the Geneva Conference and this was substantiated by members of the Frequency Allocations Sub-Committee at meetings which I attended with other members of the Federal Executive. As has been said so often during the past many months, the initial proposed frequency curtailments were only proposals and would have to be widely discussed by all countries before we could have lost them. Even now, the present position could change overnight, but it is heartening to know that at least initially Australia has agreed to withdraw its proposal regarding the most important DX band assigned to Amateurs.

Despite the pressure for frequency space in the bands between 3 and 30 Mc., there does not seem any likelihood that changes will be made to the present 21 Mc. band. The 28 Mc. band will also probably remain at 28 to 29.75 Mc. which is officially what Region III. has always had although the Australian Administration has permitted us to use up to 30 Mc. in the past.

As at the last report I received from Geneva, only preliminary discussions had taken place on the bands above 30 Mc. and there is nothing to report at this stage.

Looking at John's reports in retrospect, I am satisfied that the money raised to send our own representative to Geneva has been far from wasted, and the knowledge gained at a Conference of this nature will have been well worth the cost by the time the Conference concludes.

As John Moyle says, and I quote from part of one of his reports, "When extreme pressures are at work, particularly in the bands between 3 and 30 Mc., there isn't much sentiment where national interests are involved, and discussions frequently are converted into major political issues in the big plenary sessions. At the moment of writing there are more than 60 separate committees and groups functioning, and others are created and closed almost every day. The task of following even those in which we are mainly interested is very great, and it has been an education to me which I hope will be completely invaluable in helping us to understand and then handle our problems in the future."

You will recall from my earlier report to you that part of our brief for John Moyle was to investigate more fully the position of the International Amateur Radio Union today and what could be expected of it in the future.

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The closing date for copy for the January issue is 1st of December.

At a meeting of some 80 Amateurs, he had the opportunity to discuss the I.A.R.U. and reports that he made quite a long speech concerning Region III.'s outlook and what should be expected of the Union during the next eleven years. John reports that he will have quite a lot to say about the I.A.R.U. when he returns.

I hope in the near future to be able to give you a more definite report on the probable outcome of the Conference where our bands are concerned. In the meantime I would ask you to try and appreciate the sub judice nature of proceedings at this stage and the danger of making public statements until confirmation of the final position is made known.

G. MAXWELL HULL,
Federal President, W.I.A.

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Some Hints on the Stabilisation of Tetrode and Pentode Amplifiers

EDWARD P. TILTON, WIHDQ

THE four words of our title are encountered almost daily in mail handled by the A.R.R.L. Technical Information Service. They are also voiced frequently by visitors to the A.R.R.L. Lab., who tell us their troubles with equipment they've been building. Often it turns out that instability trouble these fellows have is the result of common misconceptions as to right and wrong methods of bypassing and grounding in tetrode and pentode amplifiers.

We neither expect nor want everything built from "QST" and the Handbook information to be exact duplication of the original. To be of greatest value, equipment descriptions should be used for ideas to be incorporated in gear of your own design. If "QST" and Handbook articles were used only for exact duplication they would not be making the most of the time and money spent on them. The important thing is to know what to change, and what to leave as the original designer made it. Methods employed in bypassing and grounding should be in the latter category.

To some extent each new amplifier represents a design problem. We would not have you believe that every transmitter or converter built in the Headquarters lab. is stable right from the start. But from long experience we have become well acquainted with some of the more common forms of instability. These have all been discussed at one time or another, but a summary may still be in order, especially in view of the fact that assembly details we will be talking about often do not come through well in photographs. Even an experienced builder of Ham gear may find it hard to know just where to put a by-pass lead or a grounding lug, no matter how well the pictorial and descriptive details are set forth in print.

Certain tubes have a reputation of being hard to tame. The 807 was such a dog for many Ham's for years, and the evil reputation it built up, largely unjustified, is now inherited (with even less justification) by the 6146. It is true that tetrode and pentode tubes, having very high power sensitivity, may require neutralisation, but more often than not the trickiness involved in getting an amplifier to operate stably is the result of violation, by the designer, of certain cardinal principles. If you yearn for the "good old days" of easily neutralised triode amplifiers it may be that you've been building in some troubles for yourself.

PUT THE SOCKET ABOVE THE CHASSIS!

Many a lab. headache has been relieved like magic by the simple expedient of taking out a socket that was mounted below the chassis and putting

it on the tube side of the chassis or mounting plate. This became really important when we started building transmitters that had to work on many bands without readjustment of neutralisation. Cause of the oscillation trouble with sockets mounted under the chassis is often the long plate-cathode return. This return cannot be made effectively via screws going through the chassis. The actual path (and you can often trace it by chassis "hot" spots) is around the edge of the chassis, or through some large hole. Some considerable portion of the chassis thus becomes common to both plate and grid circuits, and the resultant feedback is difficult to neutralise out.



Models illustrating right and wrong methods for bypassing and grounding terminals of a 9-pin miniature socket. Both show Pins 4 and 9 grounded, while a cathode return and associated bypass capacitor connected between Pin 3 and ground. In the wrong approach, left, the return is made from Pin 3 through the center shield to Pin 4 to a grounding lug. No bypass is made from Pin 3 to the centre shield, making its path to ground common with other circuits. In the example at the right, the pins to be grounded and the ground lug itself are bent tightly against the cylinder and soldered in place. Bypass is grounded at the bottom of the lug.

This sort of thing may not be troublesome in an amplifier designed for a single band, though even here it may make the neutralisation job fussier than it should be. But in an amplifier for several bands the effect of coupling through common ground paths varies with frequency. Your amplifier requires neutralisation on some bands but not on others, or the degree of neutralisation cannot be set up right for several different bands. Having gone through this with more amplifiers than we care to recall, we now put the sockets atop the chassis first, instead of making ourselves an almost certain revamping job by mounting it in the "conventional" manner.

COOLING DOWN THE SCREEN

Once the socket is mounted above the chassis the method of bypassing is still important. The screen and cathode must be at zero r.f. potential or there's going to be trouble. The screen is the villain in some amplifiers that should be stable but aren't. To cool it off, bypass right at the screen terminal or terminals. If there is more than one screen pin, bypass each one separately right to the chassis, with no leads. Forget the old precept of a common ground bus, or a common grounding point. The chassis is the place to go with bypasses, and without any wandering!

Ordinary bypassing may be ineffective in v.h.f. amplifiers, especially for

144 Mc. and higher. Then some form of screen tuning becomes necessary. Examples will be found in all recent editions of the Handbook. Such circuits usually involve series-resonating the screen circuit to ground, to provide a path of lowest possible impedance.

Occasionally you will find a circuit in "QST" or the Handbook in which no screen bypass is shown. These bring inquiries as to whether an error was made, and what value bypass should be used. Diagram readers are accustomed to seeing screens bypassed, and they can't imagine it not being done. Sometimes the circuit is a frequency multiplier, and in that case it doesn't make much difference whether the



screen is cold or not. Why waste a capacitor, in that event? At 220 and 420 Mc. several factors come into play that may make screen bypassing unnecessary. The screen-to-ground capacitance within the tube may be enough to do the job at these frequencies. More important, degeneration due to cathode lead inductance, and loading of the tuned circuits by the tube, may cut the power sensitivity of the amplifier to the point where self-oscillation is not the problem it is on lower bands.

THE HOT CATHODE

Oscillation troubles are often built into tetrode or pentode amplifiers by inserting a keying jack in the cathode lead. The cathode has to be cold, too; perhaps even more so than the screen. In the 50 and 144 Mc. excitors in the Handbook you'll notice that the 50 Mc. job has cathode keying; the 144 Mc. one does not. That's because small disk ceramics (probably the best v.h.f. bypasses available at low cost) are effective at 50 but not at 144 Mc. That 144 Mc. cathode (2E28 or 6146) could probably be cooled down by some special circuit tricks, but we found it simpler to resort to some other method of keying, and left the cathode grounded by the shortest possible lead, in the rig for the higher band. Grounding each cathode lead separately may be desirable with the 2E28 and 6146.

BYPASSES THAT DON'T BYPASS

Oscillation troubles are not confined to transmitters, as any v.h.f. converter builder knows. And oscillation is not always where you'd expect to find it—in a pentode or neutralised-triode amplifier stage. We've seen quite a few "grounded-grid" stages that took off all over the place because the grid was not actually grounded. In several instances a wire lead was run from the cylindrical shield in the centre of a miniature socket to a ground lug at one or both sides of the socket. Bypass capacitor leads were connected to the cylinder, or to some point along the wire, rather than to the lug, right at the chassis.

The effect of r.f. voltage building up on a ground lead, perhaps no more than a quarter inch long, can be observed by running the stage in an oscillating condition, and then probing for hot spots with a pencil lead. If the stage is in a receiver, you can listen for scratching sounds. If it is a transmitter, watch the grid current in the offending stage.



Tube socket with built-in grounding ring and four lugs (left) is an invitation to trouble due to common ground paths. Flange between lugs may not contact chassis, in which case connections made to lugs have long path to ground. Socket at the right necessitates grounding to chassis or to lugs under mounting nuts, making it possible to avoid common ground paths.

In a 50 Mc. transmitter built for the 1959 edition of the A.R.R.L. Handbook we ran into trouble with a 6146 stage that refused to neutralise. We tried several methods; each would come close, but not quite do the job. In this rig we had abandoned the principle discussed earlier and mounted the tube socket below the chassis, primarily to save over-all height. With just one hand to worry about, we felt the calculated risk worth taking.

In this amplifier both the screen and cathode leads were hot. Touching the screen or cathode terminals caused a flicker in the small amount of grid current that persisted in the 6146 stage, when drive was removed. In desperation we pulled out the socket and put a different type in its place—and at once the capacity-bridge neutralisation system we'd been wrestling with for days neutralised the stage out as easily as anything we've ever worked with.

The cause of all the trouble was the same old bugaboo, common ground paths, in a somewhat different form. The socket was a popular make having a metal grounding ring in a slightly different plane from the ears that mount the socket to the chassis. There are four lugs extending from the ring that are intended for grounding points. They may be suitable for that purpose at lower frequencies, but in a v.h.f. amplifier the lugs and ring provide a built-in common path for the circuits grounded or bypassed thereto. We've had at

least two hassles with sockets of this type in recent lab. experience, but this writer will have no more!

Quite a bit of new manufactured gear employs a device that was all but discarded years ago, the so-called wafer socket. In the days of the "low-loss" insulation craze we looked down our noses at anything but ceramic insulation. Now we know that most other insulating materials are good enough, at least in low-voltage applications, and that the physical construction of the socket as to lead lengths may be more important. The flat wafer socket has a distinct advantage in this respect. If the chassis is a material that will take solder readily, socket terminals to be grounded can be soldered directly to the chassis, resulting in much lower lead inductance than is possible with bulkier ceramic or moulded bakelite sockets.

From all this discussion it can be seen that there are more causes of instability than first meet the eye. With triodes the main cause of oscillation is



the considerable grid-plate capacitance of the tube or tubes. We neutralise this out with a capacitance that is approximately the same as the tube grid-plate capacitance, feeding back energy 180 degrees out of phase with that fed through the tube, and the job is done. The power sensitivity of triode tubes is low, so the neutralisation process is fairly routine. (We didn't think so back in the '30s, however!)

Tetrodes and pentodes have additional tube elements that keep their grid-plate capacitance at a very low value, usually under 0.1 pF. This in itself is seldom enough to cause trouble, but our layouts usually add other kinds of feedback. If we don't shield or otherwise isolate the input and output circuits there may be fairly large values of coupling between them, by inductive or capacitive means. Power leads, unless carefully decoupled, may provide common coupling. But even a perfectly shielded amplifier with adequate lead filtering can still have common coupling between the input and output circuits through the ineffective bypassing and grounding techniques outlined above.

And when all these factors are taken care of we still have parasitic resonances—but this started out to be a discussion of bypassing and grounding techniques. Squelching, parasitics is another story, and one that is already covered adequately in the Handbook.

TECHNICAL TOPICS

NETTING

HEARD on the 7 Mc. band quite frequently: "This is VK3XYZ standing by for VK5YZK". VK5YZK does not reply. "Another transmitter failure" we think. But no. Re-tuning we find VK5YZK 5 kc. higher in frequency. Apparently in making contact one of these two stations has failed to net accurately and the result is—

1. They are occupying two channels instead of one in a crowded band.
2. Their contact may be broken up by a third station coming up on the temporarily vacant channel of the station listening.
3. In replying off-frequency, one station may have inadvertently dropped on an adjacent channel in use by a weaker station.

No good at all.

But why and how do they do it? My guess is that either:

1. They switch on the whole transmitter to net, thus blocking the receiver for 10 kc. either side and tune the v.f.o. until the blocked bandwidth straddles the frequency they wish to net, or
2. They net by tuning the v.f.o. dial to the same frequency read on the receiver dial.

The generally accepted accurate method of netting is to switch on only the oscillator tube of the v.f.o. or such low power stages that the signal can be heard in the receiver without blocking it and zero-beat it with the signal of the station being received. It may happen then that when the final stage comes on, it pulls the oscillator to a new frequency, but if this causes more than a hundred cycles or so change, then an additional isolating stage is required in the v.f.o.

The necessary switching arrangements to bring in the oscillator separately are not difficult to design, but there are a few catches. At the first attempt at my station, switching on the oscillator plate also brought on the screen of a later stage without the plate of the latter stage and this does not tend to long life of tubes.

A method of checking whether the oscillator is pulled when the final comes on is as follows: First, listening in the receiver, zero-beat the frequency meter-monitor to the oscillator signal. Then switch on the final and listen in on the monitor to see whether it is still zero-beat.

—J.A.G.

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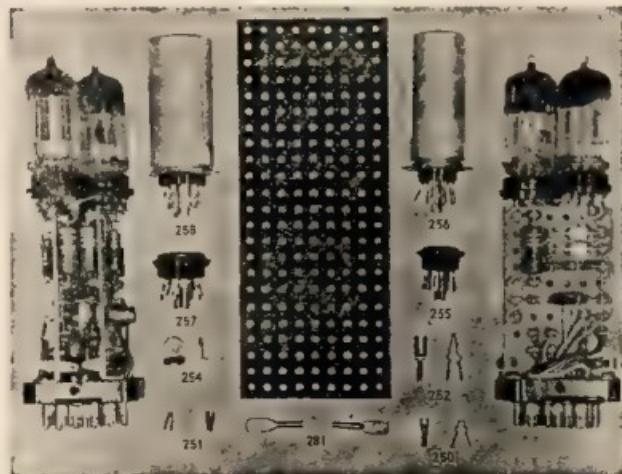
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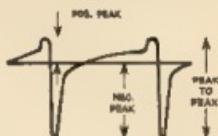
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Station, Thursday Island; Postal: C/o.
Royal Hotel, Thursday Island.

ZTM—T. J. Meredith, 17 Davidson St., East
Ipswich.

ZVK—S. W. Grimley, Station: North Rd.,
Beechmont, Postal: Charles St., Tweed
Head.

ZWAJ—J. R. Barker, 14 Whist St., Windsor.

ZZCG—B. W. Bartlett, 35 Woodville Place,
Annerley.

ZCKM—R. W. J. Hassell, Station: 78 Barton Rd.,
Hawthorne; Postal: C/o. Supervising
Engineer, Radio Installations, G.P.O.,
Brisbane.

ZCR—L. I. Boyce, 41 Ryland St., Grovely.

ZFZB—F. J. Beckett, 588 Flinders Pde., Bright-
on.

South Australia

ZAH—R. C. Richardson, 11 Whinham St., Prospect.

ZAY—J. K. Davey, 35 Ackland Ave., Clarence
Gardens.

ZAS—D. J. Edwards, Woomera.

ZEPF—B. R. J. T. Pooley, 13 Spruance Rd.,
Elizabeth East.

ZVFL—F. R. Letherbar, 62 Fletcher Rd., Largs Bay.

ZVFS—J. L. Gutierrez, Mareham Rd., Sira-
chaylnby.

ZGQJ—J. A. Hayward, 19 Phillip Highway,
Elizabeth.

ZGU—B. R. Dwyer, Radio Workshop, R.A.A.F.
Base, Swanwick.

ZJMM—S. Duncz, Station: Knott St., Port
Lincoln. Postal: P.O. Box 36, Port
Lincoln.

ZJX—M. J. Dew, 28 Norman St., Undervale.

ZNZ—L. A. Lawson, 222 Anzac Highway,
Plympton.

ZOP—D. W. Averd, Mobile in South Australia
(except Woomera area); Postal: C/o.
Aeronautical Radio Pty. Ltd., Box
1689, G.P.O., Adelaide.

ZSK—S. S. St. George, 59 Crozier Ave., Colonel
Light Garden.

ZTC—C. T. Rydel, 10 Willow Ave., Findon.

ZWD—R. A. Warner, 4 South Esplanade, Glen-
elg.

ZZW—M. H. Bone, 1 Beech Grove, Marryatville.

ZZCH—K. V. Hanson, 26 Langford Ter., Salis-
bury North.

ZZN—T. Hart, 18 Nunyah Ave., Parkholme.

ZZCO—B. J. Southcott, 366 Beaumont Rd., Bea-
umont.

ZZCQ—G. M. Taylor, 16 Fairmoor St., Black
Forest.

ZZCS—B. J. Purvis, 15 Main Ave., Freewville.

ZZCT—B. H. Burford, 45 Belair Rd., Fanchette
Park.

ZZDW—R. M. McDonald, Base Squadron,
R.A.A.F. Darwin.

ZZFP—I. B. Fraser, Station: Russell Ter., Kille-
rummy; Postal: Box 180D, G.P.O.,
Adelaide.

Western Australia

ZHG—R. E. A. Grigson, 107 The Strand, Bed-
ford Park.

Tasmania

ZAC—R. K. Emmett, 5 High St., Lenah Valley.

ZEAR—H. A. J. Reynolds, 3 St. George's Rec-
tory, Battery Point.

Territory of Papua and New Guinea

DMV—V. E. Matthew, Christmas Island, Indian
Ocean.

ZTK—Rev. T. J. Keller, Catholic Mission, Kurru,
New Ireland.

Astartelles

ZGB—I. G. Bird, Mawson.

ZIB—L. K. Black, Macquarie Island.

ZIT—I. N. Thomas, Macquarie Island.

ZJM—D. J. Molle, Davis.

CHANGES OF ADDRESS

New South Wales

ZDR—N. Wides, 153 William St., Bathurst.

ZIN—R. C. Meadows, 3 Forrester St., Chirnside.

ZMKL—A. L. Elphinstone, 34 Maccella St.,
Kingsgrove.

ZOH—D. Howe, 86 McIntosh St., Gordon.

ZOR—R. T. Tuck, Lot 21, Power St., Plumpton.

ZYM—C. G. Tuck, 15 Boundary Rd., Penruddock
Hills.

ZWD—W. J. Leach, 31 Cliff Rd., Epping.

ZAF—A. J. Fisher, 1 R.A.R., Holsworthy.

ZAR—A. J. Pickles, 611 Princes Highway,

Kogarah.

ZAV—A. G. Mulcahy, 44 Louisa St., Padstow.

ZADG—G. F. Griffiths, 8 Carrington Rd.,
Kempsey.

ZADO—D. Bird, 78 Gordon St., Manly Vale.

ZAEH—D. J. Morales, 55 Elizabeth St., Albany.

ZAGE—G. A. Dowse, Pine Ave., East Ballina.

ZAJM—A. H. Bull, 55 Koala Ave., Killara.

ZAPA—F. E. Ashby, "White Cottage," 14
Birkura Ave., Newport Heights.

ZAPN—P. A. P. Parker, 100 Pittwater Rd., Pittwater.

ZARA—W. N. Short, 55 Auburn Rd., Auburn.

ZATU—E. M. Craig, 25 Coal Point, via Toronto.

ZATU—B. McDonald, 24 Beach St., Blackheath.

ZAXM—C. B. McDonald, Bell Ave., Lindfield.

ZCC—C. W. Grace, 16 Bonita Ave., Gymea.

ZCF—R. P. Lopez, Married Quarters, No. 337
Lighthouse Pde., Holsworthy.

ZDS—A. W. Sargess, Flat 3, 8 Dundas St.,
Coogee.

ZEA—J. A. Ashby, Byng St., Holbrook.

ZJJ—J. Jeffrey Doyle Lane, Muswellbrook.

ZZMB—R. J. O'Sullivan, 52 Kallet St., Kings-
Cross.

Victoria

ZKG—S. C. McLean, 20 Balcombe Rd., Caul-

erburn.

ZHW—A. N. Herwood, 45 Edmund Ave., Ash-
burton.

ZJH—J. L. Richards, 1 Maria Ave., Nunawad-
ing.

ZJV—A. C. Knight, 1 Phyllis St., Doveton.

ZKJ—R. P. Prusse, 28 Broad St., Bentleigh.

ZKU—B. D. Clarke, Station F, P.M.G. Radio Re-
ceiving Station, High Park, Killmore;

Postal: P.O. Box 3, Killmore.

ZMJ—W. L. Matters, 54 Watson St., Rosanna.

ZOD—D. L. Watson, 3 Caverton Court, Heide-
ldberg.

ZVK—M. F. Spiller, 1 Harrison St., Ringwood.

ZAM—A. H. Sengela, 71 Burndilly Rd., Caul-
field.

ZABX—D. Bond, 11 McKenzie St., Coburg.

ZADG—G. W. Kidson, Rutland Ave., Mount

Eliza.

ZADH—A. R. Roy, Flat 3, 648 High St., Arma-
dale.

ZAGE—M. G. Keam, 18 Crawley St., Warrnam-
bool.

ZAGH—T. E. Page, 27 Nelson St., Niddrie.

SARJ—R. J. Harrison, 394 Waterloo Rd., Glen-
roy.

SAHW—A. W. White, 60 Rose St., Dandenong.

SAJU—T. H. R. James, C/o. H. E. Mason, 55
Lower Dandenong Rd., Brinsford.

SAMK—L. L. McNamee, 7 Gwenda Ave., Black-
burn.

SAPC—S. A. Robbie & District Radio Club, 17
Collier Grove, Black Rock.

SAWZ—W. M. Zimmerman, 18 East India Ave.,
Nunawading.

SAYF—F. E. A. McClymont, 1 Everard Drive,
Warrandyte.

SZFI—M. G. Bridger, 129 Nott St., Port Mel-
bourne.

SZPK—D. J. Goss, 19 Fitzgibbon Crescent,
Caulfield.

SZPT—R. G. Terrill, 6 Clematis Ave., Wom-
an'sbury.

SZGS—M. Suboce, 126 Hill Rd., North Balwyn.

Queensland

SAT—A. E. B. Molneaux, 7 Salter Ave., Marion.

SFQ—B. A. Park, 2 Forrest Ave., Hawthorn-
dene.

SFK—V. M. Reeves, 3 Leicester St., Parkside.

SQK—J. M. Stewart, 33 Stephen Ter., Gilberton.

SPL—G. J. Porter, 21 Wangary Ave., Sawtell
Downs.

STK—G. P. Tuck, Lot 21, Balmoral Rd., Dur-
hamcourt.

SYQ—E. A. Charles, 41 Open Ave., Hyde Park.

SZAN—M. J. Goodridge, 45 Prospect Rd., Pro-
spect.

SZCX—S. H. Wall, 234 Seaview Rd., Henley
South.

Western Australia

SAT—A. T. C. Hanson, The Esplanade, Esper-
ance.

SQJ—C. F. Jacobs, 40 Furlows St., Mt. Haw-
thorne.

SEA—A. A. Entwistle, Lot 94, Wangalla Way,
Kangaroo Point.

SFR—P. A. Hull, 17 Wald St., Claremont.

SKHW—K. W. Hobby, 12 Beech St., Mooran Park.

SKJZ—B. H. Gates, Station: C/o. Gates Radio
Sales & Service, Peal Place, Albany.

Tasmania

TDK—D. H. Kelly, C/o. Staff Quarters, Post-
inna.

Territory of Papua and New Guinea

SQW—G. K. Williamson, Telegraph Office.

CANCELLED CALL SIGNS

VK— Australian Capital Territory

1VV—R. M. Marsden, New South Wales

1GD—K. H. Hatton, 2LA—E. A. Lawson; 2MF—
G. M. King; 2HQ—T. Armstrong; 2NN—W.
H. Marshall; 2P—D. C. Pugh; 2R—J. G. Mc-
Mahon; 2AC—A. G. Parker; 2AQW—W.
Short; 2AQG—L. G. Gutherford; 2AYD—D. E.
Evans; 2P—Woodrun.

Queensland

4AZ—R.A.A.F. Radio Club; 4DE—B. R. J. T.
Pooley; 4KN—C. F. Poddell; 4KR—C. C. E.
Christensen; 4ZAB—T. M. Meredith.

5BBM—R. A. Mathews, 5ZAT—L. A. Lock;

5ZAH—R. G. Henderson; 5ZAT—H. McElroy.

5ZBU—M. H. Bone.

Western Australia

6ZAI—A. J. McCarthy.

7KM—K. G. McCracken.

EARLY COPY DATE

So that this magazine can be printed prior to the printers closing down for annual holidays, all copy for the January issue is required at P.O. Box 36, East Melbourne, C.2, by 1st December.

Correspondents are reminded that the closing date for copy for other months is the 8th of the month preceding publication. Copy arriving after that date may not appear.

SWL

Maurice Cox, WIA-L3055
Flat 1, 37 Boyd Crescent,
Clytie Village, Heidelberg,
N.S.W., Victoria

Following interesting items are from Don Grandey, WIA-L2022 —

Card Swappers.—Two more overseas listeners anxious to swap cards with other listeners are Doug Duncanson, Melbourne, Mainz, and Oscar Hayes, Caracas, No. 877 Vibora, Havana, Cuba. This card swapping is a very good way of getting to know more about the other fellow, and listening in other countries, but don't try sending your address to the overseas stations. The R.D. Managers have enough to do now.

DX.—Don't waste a card on ELOK/MM as he won't QSL. ZDMDT, FB, FC, HJ, HN, JL, NJ and RM are the only Licensed ZD6s. Radio Moscow operates a DX session on the first Sunday of each month from 1000 to 1200 GMT, but no further details available as yet.

48TEF will QSL 100 per cent to all s.w.l. reports, provided that they are accurate, and would also appreciate reports comparing his signal to other 48TEFs. The only other station on the island is His address is F/Sgt. Frank Johnstone, R.A.F. Katunayake, Ceylon. (Fax Monitor.)

Don't be dismayed if cards are lagging from C9B/AW, he cannot answer reports before December, and can't afford to do so via the Bureau.

WH.—Is the smart guy signing 6IKAT on Num Island on April 1st. Seems he caught a few of the I.S.W.L. boys.

9GIBQ on 20 a.s.b. from 1900 to 2300 GMT most evenings and with QSL 100 per cent.

E5MAA wants reports on 28 Mc. and also is 100 per cent QSL. QTH is George Eastland, Box 786, Springs, South Africa.

K5TQO Clare Spencer, P.O. Box 888, Redwood City, Calif., would appreciate a card from anyone who hears her, as would her XM, K8TQN.

QSL Cards.—Frank's remarks re accurate reports draw attention to the very poor reports which are sent out by some s.w.l.'s around many transmitters in Australia. There seems to be a lot of worthless cards going out from the "listeners" according to the remarks heard over the air, and seen in overseas radio magazines. Suggest a perusal of Eric Trebleeck's remarks on page 14 of the March 1958 "A.R." would be in order.

Awards.—By the time these notes are read, the VKS Division will be compiling the information on the new VK SWL Award. At the moment it is still in the outline stage, and has been put on paper, and it is hoped to have something original in the way of an award to offer the world-wide fraternity of s.w.l.'s.

National Field Day.—I would like to add some words concerning in Section "A.R.", but for the benefit of the listeners. In the past, listener sections have been rather poorly patronised, but we have ourselves to blame entirely. In 1958 there were six entries, five having under 100 points. The year before, however, Mr. Billard was the only entry. If we don't participate, we will find ourselves without an interest in the field day, and in this time of s.w.l. progress it would be a backward step. This is a contest which doesn't require a lot of thinking or preparation, and is the R.D.

Interstate Communication Exchange.—Many of us have trouble in our receivers, particularly those chaps who have a certain brand of set on offer in fair supply at the present moment. Would like to draw your attention to an article in Monitor, July 1958, on the subject. Anyone wanting a copy of this inexpensive w.o.a. trap can have it if they care in write to WIA-L2022.

Interstate Contest Challenge.—How about you chaps in VK3 challenging us VK3ites in the National Field Day?

NEW SOUTH WALES SWL GROUP
Barry L2088 has been doing some DX on the broadcast band. Barry told me the other day that a station in VK3 near 850 Kc. on Saturday night 2359 hours EST has a programme in English. They give a short talk back to people living a distance from the tx. Since they are paying off distances of 50 miles or so, Barry's QSL should win the lot. Good hunting, Barry.

AMATEUR STEREOFONIC TRANSMISSION

During September, Chris VK3AJXU, whilst in QSO with VK3AGV, VK3II and VK2HN, successfully transmitted his voice stereophonically via Amateur Radio. Reports on the experiment showed that whilst Chris moved about the shack, this effect was well reproduced at the receiving station.

Chris is wondering if Gordon, Lee, Herb, and himself are the first Amateurs in the world to participate in a stereophonic sound experiment via Amateur Radio.

Chris and Gordon set up their equipment specially for the experiment, whilst Lee and Herb listened in. Another achievement for the Victorian S.W. Zone!

USEFUL CHRISTMAS GIFTS

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60 ELIZABETH STREET, MELBOURNE, C.I

D X

John C. Pinnell, VK2ZR
15 Summit Avenue,
Earwood, N.S.W.
Phone. UW 4342.

The general feeling of most Amateurs is that the bands were not so good for DX this month although at times things were really good. I did not do so well with contacts from all continents except Europe which was very easy to work from my location. I made 158 contacts in Europe which is a little higher than my usual monthly average, 15 and 20 metres being used.

Rare DX is hard to come by these days, and a bad thing on both 7 and 14 Mc. is the increased phone activity creeping below 1600 and 1400 UTC. And this often happens when the bands are quiet and there is plenty of space for phone up the band (14MHz).

Generally speaking, 14 Mc. phone band conditions have not much improved since August. Most contacts at all stations were worked after 16 pm, this being the only time of the day I could hear 'em. On several occasions during the month Aurora effects were noticeable, and erratic conditions resulted thereby. It is very noticeable that, as a rule, aurora signs are accompanied by their absence, and this applies to the "kawolot boys." The old reports that we were giving these last year (now over 9) simply do not seem to appear now (AOAC).

NEWS AND NOTES

OK7HZ was in Lebanon during September signing OK7HZ/OD and by now should be in Syria where, it is understood, he will have no trouble obtaining an operating permit. He was unable to get a license while in Turkey.

After Syria, George plans to be in Saudi Arabia by the end of the year and, if possible, continue on to Yemen. After that, the plan is to be in Iraq and Iran, and Afghanistan about April 1960.

VGIBQ has been active on 7000 Kc s.s.b. during the week-ends.

SVOWB (VGSSG) will be leaving Rhodes early in December to return to the U.S.A. He is very active on 14 Mc. s.s.b.

From Rhodes, LA1NO/P is working c.w. and LASO/P is on s.s.b. and they will be there until the middle of next year. Mail service will be cut off during their winter months.

VG1PLB is working 14 Mc. a.m. phone from Brandon Islands which are located about 250 miles north west of Mauritius. It will probably be given separate country DXCC status.

VE5AZA is a new one and claims to be located in Mukalla, a city in "anti State," he says it might be counted as a new country. If not a new country, it will be counted as Aden.

DUFP, whose recent trip to Andorra as DUEPF, made nearly 2,000 contacts. His QSLs should start to come through within the next few weeks. He plans another PX expedition for next year, possibly accompanied by DL1IAH.

LA4APF/P, who was located on Hope Island, Svalbard, has returned to Norway, and is amassing all QSL cards as rapidly as possible. ZD1R is still here, living in London, and is returning to England. QSL to him via RSGB is welcome.

Vaticano City—WHOP will operate HVICN during "CQ" C.W. DX Contest in November. IGM is active on phone around 2200z on 14240 Kc. strictly controlled.

VG5TF, well known DXer from Ceylon, who got his 23 watt s.s.b. on the air a few days ago, is now closed down as he is returning to England.

AC4AX is still in Lhasa and is about to return home with high power and a beam antenna. WSYVY.

No records are available of the following calls being assigned, and are believed to be phonies: FBBFT, on 21 Mc.; URILID, on 14 Mc. c.w.; and APBS/YA. APBS says he did not work from YA (W4FVR).

* Call signs and prefixes worked.
+ zero time—GMT

VE1ML, VY6RJ and VE6PF are active from the Faeroes Islands on 14 Mc. c.w. Times 1600-2100z and 0600-0800z in Sydney. Some stations worth listening for on 14 Mc. s.s.b. between 1700 and 2000z: EGIN, MP4BBW, JAS1A, SAFTA, GW6LUU, OG6GU, VQ6SEH, GCKLXK, OR7HZ/OD, SK1AL, KG1FD, SK1CR and EA1CA.

VK1ATM, Melbourne University Amateur Radio Club, is active on 15 and 20 metre phone (L3000).

ACTIVITIES

L5 Mc. Pheat—L3000 ZL2AAK, SY. 387, RE. WR. 48J. GM. FK1AU

L7 Mc. C.W.—FABT—45TP7—BERSIS: JA-

ILR, KH6CBK, UADFF, USAFM.

L9 Mc. C.W.—LZ1R—CQHQ, FOACM, KB-

SY, L2000, L2001, LZ1R, L2030/P (Jan Mayen), OZ1QH+, OZ1SH+, KM6BI, VPIRG+, TIIP7+, VQ6WQ, VU2HZK, YU1C+, CO2Z,

CNEPB, CP6CN, EUSM, VQ0AIIW, UPENN,

STAR, V2A, KW4JU, VS6RM (Oman), UBAK, VU-

3A, KW4A, VU4ZU, ZM2GE, EQI, FTR, FTR,

FTR, FTRZ+, HEDQ, ZM2PS, ZSTM+,

ZLATD, USM, UG5AB, UG5AW,

VUSOM (see DJAYS, DL1XH, DM1ACA,

FTQH, G1DPP, GC1FMV, BV1UHS, GM-

100, GM1C, GM1CJ, GM1CJF, GM1CJH, P+

OH3OB, OK1KZ, ON4PU, PA9PF, TM-

TER, SP6DT, UAIKAIH, UAKDA, UCKAR,

YU3QZ, ZS1WM+, BE5IS, CO2SW, FC2B,

FC, FOAC, HPIAO, KM6BI, PY4AO, UBAK,

UM, SP6F, SP6H, SP6K, VU2AL, YA-

IAG, SP6F, SP6H, SP6K, VU2AL, YA-

MM, LA1OF/P (4XON/4/Mad 1600 W/K-

VE, JA+, BV1UHS, CTIPM, CX6CB, DJ-

IK8, KU+, DL1PZ, JA1, DM1ACA, AMG-

ADM+, FEN8, AD+, FEN9, MI+, FAKO-

IR+, HAM1, HS1A, HS1B, HS1C, HS1D, HS1E,

HRS1F, HS1G, HS1H, HS1I, HS1J, HS1K, HS1L,

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(actual size)



PROTECT YOUR TRANSISTORS WITH ORYX

There is a danger of damage when soldering to transistor leads, due to A.C. leakage currents. The use of a low-voltage transformer supply, with earthed secondary is therefore recommended. Take care also that too much heat is not applied to flying leads. The ORYX iron, and a heat-sink such as heavy pliers gripping the lead between the contact point and the transistor, will ensure protection.

- Fast heating element, ready for operation in less than one minute.
- Exclusive design features resulting in universal acceptance of ORYX as the standard miniature soldering instrument.
- The ORYX long life element will outlast several bits which are of tight push-on fit.

Bit Dia.:	Volts	Watts	Nett Weight	Length	Recommended Use
Model 6 1/16" (Fixed)	6	6	0.25 oz.	6"	Electrical measuring instrument fine assemblies, hairsprings, R.F. pick-up and speech coils, hearing aid sub-assemblies, etc.
Model 6a 3/32" (Push-on)	6	6	0.25 oz.	6"	As for Model 6 (for extremely delicate work only).
Model 9 5/32" (Push-on)	6, 12, 24-27½	8.3	0.25 oz.	6"	Hearing Aids, Radio and TV Sub-assemblies, Coils, Electronic Instruments, Model Construction, Electro-Medical, etc.
Model 12 3/16" (Push-on)	6, 12, 24-27½	12	0.5 oz.	6.25"	Radio, Television, and Telecommunications assemblies
Model 18 3/16" (Push-on)	6	18	0.75 oz.	7½"	For heavier work, heat capacity equivalent to that of most 80 watt soldering irons.

MANUFACTURERS SPECIAL PRODUCTS PTY. LTD.

47 YORK STREET, SYDNEY

MELBOURNE : Amalgamated Wireless (Australasia) Ltd.
PERTH : Nicholsons Ltd., Carlisle & Co. Ltd.

ADELAIDE : Newton McLaren Ltd.

HOBART : Noyes Bros. Ltd.

BRISBANE : Chandlers Ltd.

NOTES

FEDERAL V.H.F. CENTURY AWARD

Quite a long time ago the Federal Council of the W.I.A. approved of the introduction of a V.H.F. Century Award (Certificate) to be issued to those who submitted proof by QSL cards of having made one hundred contacts on the v.h.f. bands.

Because of lack of finance the project has been "shelved" for some considerable time although initially a quantity of high quality certificate blanks were imported from the United States of America and are still in the possession of the Federal Executive.

At one stage members were called upon to submit a suitable design but no efforts were forthcoming. Since it is now proposed to continue with this project designs will be accepted. Anyone who would care to try their hand at designing a suitable certificate blank has the chance of a fee of £3 will be paid for the design finally chosen. The lithograph design on the blank certificates is rose-red and a sample of this will be forwarded to anyone seriously interested in working out an appropriate design to be overprinted on the blank. Please write and request a blank certificate to Mr. Straughair, Federal Executive, W.I.A., Box 26116, G.P.O., Melbourne. In the event of a rush we might have to limit the number of blanks available for design purposes so be early.

When a design is completed it must be returned to Mr. Straughair who will submit it to the Executive. The design forwarded by any person will remain the property of the Institute and an design not ultimately chosen the V.H.F. Century Award is subsequently used as a basic idea in part or in whole for any other Institute award, a fee of £5 will be paid to the designer, as please see next your own copy of the V.H.F. News and addendum is clearly printed on the back of your design. Multi-color design will be acceptable although it is suggested that cost be considered when designing if more than one or two colors are proposed. Don't hesitate - do it now!

I.T.U. GENEVA

Reports from the I.A.R.U. indicate that three of the principal officers of the I.T.U. Conference, elected during the first plenary session in August, are Americans. Dr. James E. VEBAC, is chairman; Jason A. LUSUL is vice-chairman; and Gerald Gross HEBIA (formerly WSGG), acting secretary-general of I.T.U., is a secretary of the conference.

The second plenary meeting in August, the I.A.R.U. was one of the 16 international groups admitted to the conference.

John Clarissios, G6CL, and Per-Anders Kjellman, SM2BD, represented the Union at the meeting and for some weeks after, however, it can be seen that they will be relieved later on by other representatives.

Secretary Budlong and A.R.R.L. assistant manager Huntington are "Industry Members" of the American delegation, and have been assigned to the conference's liaison group, working in that capacity in committee 4.

Early September the committee had completed preliminary examination of the spectrum below 4,000 Kc and had commenced an initial exploration of proposals concerning the spectrum from 4 to 274 Mc.

CONTEST CALENDAR

Compiled by W.I.A. Fed. Contest Com.



"CQ" WORLD-WIDE:

CW Last week-end Nov. '58.

R.S.G.B. 21/25 Mc. PHONE CONTEST:

Dates 0700 hrs. Sat. Nov. 21, to 1900 hrs. Sun. Nov. 22, 1958.
Rules See "A.H." October, 1958.

The chairman of committee 4, Gassar Petersen, of Denmark, noted in passing that the various proposals appeared to divide the delegations into two opposing camps—those who wished to leave unchanged the present allocations to the high frequency band, and those who wished to make additional space available for broadcasting, mostly at the expense of the fixed service.

TWO NEW MEMBERS ON FEDERAL EXECUTIVE

The Headquarters Division of the W.I.A. has entered into co-operation with the Federal Executive of two new members, Mr. David Rankin, VK3QV, and Mr. Tom Straughair, VK3ZIT.

Mr. Rankin was formerly holder of the International O.C.P. and although his chief interest is in the v.h.f. field, he has recently passed his morse code to gain the full transmitting license. As an experienced v.h.f. amateur he will represent the v.h.f. groups on the Federal Executive and this representation will be the task of Mr. Straughair, who is a v.h.f. licensee all over the Commonwealth will be dealt with. V.h.f. licensees are therefore invited to raise any queries through their Division's Federal Councillor and Mr. Rankin will be asked to present the problems to the Federal Executive and advise of any decisions reached.

The Institute has grown considerably over the past five years or so, and with its growth come more work. To cope with this and catch up with work which necessarily had to be left "undone," the Federal Executive is being re-organized so that the work is more equitably distributed. This may take a little time, but it is envisaged that the results will nevertheless be well worth while. In this arrangement Mr. Tom Straughair will be undertaking various outstanding projects and these will be notified to Federal Council and within these columns from time to time.

COMPOSITION OF FEDERAL EXECUTIVE

Federal Executive is composed of the undermentioned members who carry out the various appointments within the Executive:

President — Mar Hull, VK3ZEG
Vice-President — George Glover, VK3AG
Ass. Sec./Bus. Officer — Bill Mitchell, VK3JUM
Treasurer — Bob Boase, VK3NT
Publicity Officer — Len Burton, VK3AJB
V.H.F. Officer — David Rankin, VK3QV
Project Officer — Tom Straughair, VK3ZIT

George Glover also holds the appointment of emergency co-ordinator in addition to that of Vice-President!

CANCELLATION OF PRIVILEGES

In mid last A.R.R.L. received information that the Government of Ethiopia had cancelled all Amateur Radio licenses with the exception of one which is held by a member of the Royal Family.

JAPAN AMATEUR RADIO LEAGUE

This Society now has a membership of some 70,000 and became an independent society at its annual general meeting held in June. Ken-ichi Kajii was elected chairman of the Board of Directors.

The meeting was addressed by the President of the Japanese Red Cross who praised the role played by JAS in rescue work in disasters and citations were given to those who made outstanding contributions to Amateur activities.

MARITIME BRITISH

Liberian Radio Service has granted Maritime Mobile privileges to Amateurs aboard Liberian ships. This concession was obtained by the Union Schweiz Kurzwellen-Amateur.

FEDERAL AWARDS

HERMANN LANGE

Credit will now be given for contacts with ZL1BZD on Kermander Island. Cross-band contacts will not be considered for credit purposes

G. Weynton, VK3XU, Manager

NEW SOUTH WALES

The September general meeting of the N.S.W. Division was held at Science House, Gloucester St., Sydney, on 25th Sept. The meeting

V.H.F. NOTES

At the time of going to press the v.h.f. notes from Frank O'Dwyer, VK3OF, had not arrived.

opened at 8 p.m., the President, Dave EKO, presiding. Three overseas visitors were present, namely, OH2MT, DL1SJJ and Ted Klein. They were presented with a Call Book in commemoration of their visit to our meeting. Apologies for the absence of reports received from 2A2PQ and 4WS. Following the usual formalities, 20 new members were admitted to the Division, making a total membership of 1,186.

A letter from the P.M.G. Department was read, regarding the severe interference being experienced on 28 Mc. The Department requested the co-operation of our members in identifying and locating the signal causing the QRM. Reports on this matter will be appreciated.

A report on the Slow Morse Transmissions was made. These transmissions are conducted on 335 Mc. each evening at 7.30 p.m. under the call VK3AWI. We are pleased to have a roster of operators from all over the State to operate and assist in controlling the net. We all reports received members are most pleased with the efforts of those taking part. Undoubtedly this will assist many of our Associate and Limited ticket holders to the full call.

The lecture for the evening was delivered in a very interesting manner by Bob EZAR and dealt with v.h.f. and its techniques. The material of his lecture and the apparently never ending supply of v.h.f. equipment held the interest of the gathering and a goodly number of questions were posed at the lecture. The views of others were also solicited on the motion of EZAR, who claimed that the v.h.f. bug had bitten after many years of activity, and we feel that as a result of such a lecture that many will follow in his path.

The Convention Minutes were then discussed and all were ratified with the exception of the item dealing with the proposed date of Easter 1960, which had been suggested to deal with the report on the Geneva Convention.

The meeting finally closed to allow the usual adjournment for coffee and the rags were continued until lights out at 11 p.m.

We hear that Crit EKO, of Coffs Harbour, is ill in hospital. We hope that he will be much recovered by the time this issue reaches members. No doubt at a time like this, Crit would like to see or hear from many friends made over many years of activity. The best to you, old man, from all.

We are sorry to report the loss suffered by Fred EB2Y, his wife and son, on 25th Aug. 1958. Mrs. Treacher will be remembered by many of the older chaps as being an inspiration to all, and we would, by this means, like to convey to Fred, a Past President of the Division, our deepest sympathy in his great loss.

14 SOUTH WEST ZONE CONVENTION AT NARRANDERA

The Six Day Holiday weekend, Oct. 5th-11th was the date of a very enjoyable Convention organized by members and the wives of the Narrandera Radio Club. Registrations exceeded the 100 mark. Readers may not be aware that the Narrandera Radio Club is composed of a number of Radio Amateurs, a usual division in the town, who are members of this Division.

The function was attended by Amateurs from all parts of the zone, Bob JML, Eric JDY and Peg, and others from Sydney made the trip. Following registration in the afternoon, the Convention commenced with a meal held in the C.Y.W.C. Hall which was attended by the whole gathering including the wives and children, who were amply catered for. An enjoyable programme followed consisting of an amateur film show, including one on the 1956 Olympic Games. Supper was served—the ladies officiating.

Sunday was devoted to a Field day and despite the threatening conditions, the programme was run to time. All the band scramble was won by Bob JML, second prize went to a draw between Trevor SP1L and Frank JDY. Ladies Tx Hunts were won by Bob EHZW and Linda ZL1LS, both of Wagga; the second hunt by Eddie IVP, of Canberra, Bob EHZW being second. Blind Fold Tx Hunt was won by Neil IZCZN, and the XYL of IZL won the ladies section of the hunt.

BUNTER BRANCH

The September monthly meeting was well attended and a varied and interesting lecture was given by Frank ZEP, on various television topics. The side show, sponsored by the Bunker Branch, welcomed back after his long stay in Melbourne and two new members Ian Fyfe and Doug Dickson were welcomed into the fold as associates. Frank promised to continue his lecture at a later date, a statement which was received with enthusiasm.

A couple of pens for the red face department. Who was the guy, south of here, who spoke into a dead mike for five minutes before he woke up to the fact that all meters registered zero? I wonder if he's still there. Still has a 40-watt amber bulb shining brightly. Also we wonder who was it who for many months tried desperately to charge his battery until he discovered that a wire had come loose inside his cigarette.

Dating is the latest craze with ZL1, ZAXX and ZAGH, of course the latter doesn't really date it.

Next general meeting of the Branch will be on Friday, Nov. 8, at the usual place, but I doubt if there will be a social meeting at ZCT's so Bill should be on the high seas by then.

Annual Dinner and Field Day

The second post-war Dinner and Eighth Annual Field Day were held on Oct. 14, and despite the conditions there was an excellent roll up and a good time was had by all. Again it was gentlemen only and 83 were seated before a sumptuous repast. President Lionel H.D. welcomed the visitors.

With the exception of quite a few old-timers there who were raised by the Old Man and did their teething on the Wong Hong, the accusation was on the four old-timer guests, namely ZHG, ZAXX, ZL1 and ZAGH.

ZK3HC, Ray received his license in 1936 and was quickly amongst the DX, receiving the second certificate ever issued for W.A.C. phone. This was in 1938. Ray was beaten by one man, ZL1, in 1941. In 1941 he also became first VK5-2 28 Mz. two-way phone with VCKBQ and in the same year received the W.I.A. Certificate of Merit for being the first Amateur in the British Empire to W.A.C. on phone. During 1940-51 Ray acted as official W.L.A. broadcast station.

ZK3HC Bill's first license was in 1913 when as QDX, using St. George's 2-lead dipole coil, he made such a mess of the band that I believe the German jamming stations took over his gear. Due to many reasons Bill was off the air until 1940. When he has been active ever since. Bill was Vice-President of the L.W.A. in 1949 and in 1953 received Life Membership from that institution. At present he is retired and keeps busy mowing lawns, mending clocks etc. ZK3HC, Bill, the grandfather of amateur radio, still farms a little farm somewhere or other in 1954 and in 1951 Bill went to the Antarctic with the late Sir Douglas Mawson as radio operator. Now, say can Wal tell some of that amazing story. In 1970 he was Foundation Member of the Wireless Institute of Australia and at one time was Federal Secretary and President. For a while he had the call sign of ZTH. Bill is about 80 now. Bill is a quiet Amaturer the urea returned and he disturbed the ether under the call sign of ZAXX. Now retired, he spends most of his time on the air. One of the things I admire about Wal is that he is an Amaturer in strict sense and if there is anything that he can make he will make it—not buy it. In fact he does more experimenting than any other six chaps I know. VK5ZL, Ken, is another Amaturer who would not be at the Diner and have very little to relate except the fact that he is now wheelchair-bound.

In his capacity as the liaison to Amateur Radio and the W.I.A. Bill congratulated the Secretary, Gordon Sutherland, for the sterling work he did in connection with the Convention and he had the pleasure of telling the Branch to keep on with the good work. In response, Dave NEO said it was one of his proudest moments to be able to be here and to thank Bill for all the time he spent about the Institute which is the oldest in the world. What has been done by Executive can only be done by all members assisting and we could only agree if we assist in promoting interest of the younger generation—the school-boy. Dave also

Alan Fairhall, M.H.R. (VK1HN), gave speaker at the October Branch meeting. Discussed Amateur Radio matters with Lionel Evans, VK7EL, and Dave NEO, VK5KRO (right).

thanked Alan Fairhall and his colleagues for what they have done for Amateur Radio over the last few months.

The guest speaker Alan Fairhall, VK1HN, spoke on the ZU and ZAXX in the manner in which they broadcast their opposition to the cuts in frequency. When he raised the matter in Parliament he quickly got the attention of the house, including Messrs. Griffiths and Jones who were present at the Dinner. At present there is a clear indication that local opt-outs will not be exercised to make further reduction. Alan said that in his opinion the time has arrived when the control of Telecommunications should be taken from the P.M.C. and vested in a commission as in the United States, where the Amaturer is at the forefront.

The field day on Sunday at Blackall's Park was well suited to the blockers with webbed shoes and the results were won by ZL1 with 2PM with ZAGH runner-up. These same two won the 144 Mc hunt in the afternoon. The morning hunt was won by Bob JAZZ with 2PM in second place. The trophy for the ladder-copper, the rounder girl's went to Helen Sparkes, while Jimmy Hall carried off the boys' trophy. The lucky numbers went to Mr. Bailey and Norm ZALF. We did not forget to mention that the trophy was won by Secretary Gordon Sutherland which was a fitting gesture on the part of lady luck.

Did anyone see Lee ZJU and Stan ZDZL put up the kite, but the wind dropped and so did the kite?

HISTORY OF GRIFFITHS RADIO CLUB

The first meeting was held on 31st October, 1953, when it was decided to form the Griffith Radio Club. The main function will be to encourage the interest of prospective Radio Amateurs to obtain the A.O.C.P. license.

The lectures were, for several years, given almost entirely by ZPL and it is to him the members are indebted for the number of members who have obtained their tickets. Recently ZPL has been ably supported by ZAXD and ZACR, and to others to a lesser extent.

It has been found that the lecturing pro-

gramme has thrown a heavy burden on the ZPL, and this year we have been able to obtain a course of papers prepared to assist prospective Amaturers by the N.S.W. Division.

W. C. The club is appreciative of this action as it is of great help to lecturers, enabling less experienced members to assist in this regard.

The club has its own club rooms and has available two transmitters and two receivers and works under the call sign of VK1RAGJ. The meetings are held every Tuesday and Wednesday evenings, and the annual dinner is held when members' families can attend. The President, ZECZ, has been very helpful in finding his projector for these film evenings. It is supported by ZECN, the present vice-president.

The club is proud of its record of being instrumental in obtaining for members as many A.O.C.P. licences as the complete list of Griffith Radio Club members. Five of whom have left Griffith during the last few years. VK5 ZPL, ZAXD, ZAXC, ZAXD, ZPM, ZAYZ, ZECZ, ZCN, ZLZL.

ALBURY RADIO CLUB

At the time of going to print the Albury Radio Club is really getting organised on the job of training new Amaturers, a team of lads who compose a large part of our total membership. VK5 W. C. The club is being run by the enthusiasm of the senior members who will be rewarded in the end by quite a few of these clubs attaining their ticket.

The club is applying for a call sign, and as practical exercises the students are being taught how to build their gear by building the club transmitter under the supervision of the instructors. This certainly is an excellent way to maintain interest in the younger members.

VICTORIA

STATE CONVENTION

The Tenth Annual State Convention was held at Stawell on Saturday and Sunday, 3rd and 4th November as the State Convention was re-enacted with refreshments in the "Dungeon," at Bill ZAXX's building. Our thanks go to the ladies who assisted in the provision of afternoon tea, which was very popular. Some who had travelled long distances to Stawell

The Convention dinner was held at the Commercial Hotel and we were honoured by the

presence of the Mayor of Stawell, also the Town Clerk, Shire President, Past Mayor and Past Shire Presidents.

After the speeches were over the Mayor, Cr. Hallinan, presented the Kinneir Trophy to Jim ZATB, who accepted it on behalf of the winners—the South Western Zone.

During the following topics were discussed: Commercial interference in the 40 metre Amateur Federation of the W.L.A., Disposals, and W.L.C.N.

It was reported that there is very little chance of a civil defence organisation being set up in Victoria and so the possibility of official government authorisation cards for W.L.C.N. is open to consideration.

On Sunday morning a large group of Amaturers gathered at ZHL's shack to put on the ZWI broadcast, but unfortunately conditions on the road were very poor and the transmissions were limited.

An enjoyable picnic lunch was held in delightful surroundings at Hall's Gap, after lunch some disposals items were disposed of. In the afternoon the weather turned bad, the misty, the mountainous country producing some unusual effects on the signal. The winner was John ZAGD.

NATIONAL FIELD DAY CONTEST

The Divisional Council has decided to award a perpetual trophy for competition between the zones and affiliated clubs of the Victorian Division in the N.F.D. Contest.

Each zone, or affiliated club, must enter a team in the N.F.D. must forward the claimed score being the sum of both the c.w. and phone scores, to the Divisional Secretary by date as specified due to the contest with the Contest Committee. The winner will be confirmed with the Contest Committee.

The winner will hold the trophy for a period of one year.

NORTH EASTERN ZONE

Radio Australia seems to be the home of Hams or potential Hams. Besides the regular Ham and I know, there are others who remain anonymous. Several are at present two Hams who have held G. Call signs who are out for further experience in radio transmission. They have VK call signs now, being Ted ZAPU and Dick ZAPZ. If and when you hear them on the air, give them a shout and welcome to this zone. I hope that these two boys will be available to attend the Convention this month so that we will be able to welcome them in person. So what about it, Ted and Dick?

Another new call sign (to me, anyway) is ZAKU (Alan), who is in the process of building a dual wave, one radio which I suspect will be eventually modified to a single wave space has been left for a tx. Bill ZAHG heard on 80 m兹 calling G. On and my frequency, too! Shame on you, Bill, I thought about getting an exclusive 'Donald Duck' station by now!

Bruce JAGG not very active these days, even mused by W's on the band, but since Bruce has been building programs lined up I am sure him and his associates will be heard very much. Shelly, I forgot, I had a sked with you Bruce. Not there, but a beauty. W signal was, how I get diverted, the next evening, results sounding brass again with new country results.

The self mines of Benalla have mail out only twice a year so nothing from that quarter. If space allows, and the Editor permits, I am sure you'll embark on a policy speech why I should NOT be your zone correspondent. I'll be sure to get QXL and QRU. See you at the Convention. Remember ATTEND TO DEFEND! T3.

NOORABIN & DISTRICT RADIO CLUB

At the general meeting held in September it was decided to take advantage of Morris LAMA's offer to put on a film night, and a film depicting present day China will be shown at the hall on the 11th of November. We will conduct a "White Elephant" night instead of our practical evening on Friday 8th November. Any members who have surplus gear, bring along and sell it right for a price. Proceeds from the proceeds will go to club funds.

As was anticipated, the gala opening night was a huge success, thanks to members bringing guests and mainly to Max ZDF's generosity in supplying the excellent supper and to the liquid refreshments without which there would not have been nearly as much good cheer.

Lack of notes for last month's magazine was due to the fact that I was away on business M.W. to Surfers Paradise and return. A Type 3 Mk II was taken and some fine contacts from various places were enjoyed.—NLC.



QUEENSLAND

BRISBANE AND DISTRICT

Sorry for the lack of news over the last few months and we will try to make up for it in the future. The Divisional Council has quite an unexpected resignation at the September Council meeting. Stan 4SA had to resign from all jobs he had due to the fact he had his XYL who is to have an operation in the near future. A little bird told us that Dave 4DP will be doing the job, so there isn't anything to worry about. The President's job went to Vice-President, Bruce 4ZL. We are very sorry to lose Stan, but we know you will still support us to the fullest. Mrs 4SA is well known to the Brisbane gang and all the chaps who did Stan's course have a soft spot in their hearts for her. By the way, Stan's retirement included a new hobby—model boats and there is quite a few blokes in Brisbane who became Hams as a result of Stan's class. By gosh, we're going to have a heck of a job getting a replacement for the Class A Master.

As you have no doubt heard, Council has given the "go-ahead" for the formation of branches throughout the Division and, at the October meeting, a committee will be formed to handle everything concerned with this important business.

My old pal, Bob 4NW, asked, in his September Townsville notes, if the "one-eyed monster" was the reason for the absence of the Southern Queensland gang from the bands. Well, Bob, the T.V.I. Committee assures us that they have had no trouble yet and I think the absence of Brisbane Hams is due to the bands is caused by t.v. and not t.v.i. The stations put out such tremendous signals and our 100+ 180 watt rigs only put out micro-watts and can't compete. I am sure, though, my rig on all bands from 80 through 10 with a monster in my own home and didn't see or hear any t.v.i. When the t.v. stations were off the air, I did put some nice modulation bars on the screen on Channel 2. This station was only on the air for a few days with test patterns and when it came on the air the modulation bars were nowhere to be seen.

You know, my electric face spray caused more trouble than my car and when the radio stations are on as much as they are in VK3 and VK3, I'll either have to go back to a safety razor or grow a beard again. 4EL will tell you how gashly 4PR looks with a beard. No, Bob, the blokes down here are probably spending their evenings watching the front of a t.v. receiver watching the continuous extermination of cowboys by guns (only in the hands of the "goodies") which fire 40 or 50 shots without reloading. (Our experience down under is that we have to shoot the dead cowboys and Indians from behind the t.v. set each night before retiring.—Editor.)

Frank 4ZM told me about a t.v. salesman who was demonstrating t.v. to a family who live near his QTH. Dad, Mum and all seven kids were at the front door to help the salesman demonstrate into the wee hours. The youngest kid, a little chap about four, piped up: "Let me carry the antenna; I always carry the antenna!"

You 46 metre inhabitants have probably heard Frank 4ZM back in his old territory and it's funny to think that he's been missing lately. We also have had some of the Ipswich boys attending lately and I, personally, have often wondered why they haven't been regular in the past. After all, it's only 25 miles and Mike 4ZD comes almost that distance to every meeting.

Well, it's good to be back on the job and I'll keep my note book handy to jot down notes. Cheers from 4PR.

TOWNSVILLE

The monthly meeting held on Sept. 24 at the Hotel "Cairns" was well attended, in fact a couple who have been missing lately rolled along. The chairman, 4PS, went to great trouble to explain the circular he had sent to all Amateurs for a radius of 300 miles, inviting them to a get-together hamfest of the local clubs. I am sorry to report, Lo and behold, only one Amateur replied by letter, thanking him for the invitation and apologising that he would not be present. While I clashed with the "Industries Fair" station to be held in Cairns, the card was received from the far northern boys.

Claude 4UX brought along two new associates from Ayr and mentioned the fact that his classes were on the way with nine hopefuls, and the XYL, Jess, I hope so. Claude will get used to the car open when the course starts arriving. Frank 4PR, one of the local chaps of which 12 attend, including

three XYLs. He is certain all will stay the distance and hopes all will gain the coveted A.O.C.P. As Frank will be going on holiday next month, Bill 4ZRE will take over class manager responsibilities and in the New Year others will be appointed. The club wish both these men good luck.

Band openings are beginning and 10 metres has a few callers now. 15 and 20 metre bands are good while they last, and now summer is arriving, great things are expected. On 50 Mc. the mighty openings to Japan are continuing and the first 50 Mc. band ever to be heard in Australia was heard calling 9MZDQ, so why are all poised for the break through from Townsville when the telephones will ring madly to indicate all is well?

Eric 4EL can be heard in the wee small hours working the DX while all good people are asleep. John 4DD buys painting the tower before erection; going to play 'em with new tower and s.u.b. Mike 4OM in trouble on 14 Mc. and awaiting resolution with all things that Claude 4UX tampered with the tower drawings. Ken 4ZAK on holidays and still maintaining sked with Vern 4LK on 144 Mc.

Speaking of holidays, I will be away from QTH from 14th October to 1st December, Perth (Oct. 21-31), Adelaide (Nov. 2-5), Melbourne (Nov. 12), Sydney (Nov. 14-23) and arrive in Brisbane on Nov. 26. Hope to see as many of the gang as possible.

SOUTH AUSTRALIA

The monthly general meeting of the leading Division of the W.I.A., to wit, VK3, was held in the clubrooms to a capacity gathering of members, all of whom had come only for the privilege of hearing the convention Items read and the Q.S.T. for the month. The Items were ratified in the record time of 30 minutes, and the audible sighs of relief from the members at its conclusion bore ample proof of their intense interest in all the Items.

The entertainment was continued as next on the programme and in view of some uncertainty as to who was the lecturer, Gordon 4XU stepped into the breach and gave a very interesting and instructive talk on the modulator and oscillator for double sideband. Gordon's ability to lecture is so well known that any words of mine in commendation would be superfluous—well, any way, they would be unnecessary. Les 5UX, on via Fred Hawker proposed the vote of thanks and added the fact that with the new improvements such as single sideband, double sideband, etc., etc., it was about time that something was done to improve his middle band. Whilst it would be the first to admit that his band one may be slightly off, I must tell him that if he exercised like me, it is possible that he might some day have a figure like mine. They don't call me the Rose Park Apollo for nothing!

However, let's not digress, general business being the matter of the policy of the Housing Trust and the erection of serials by members of the W.I.A., and it was decided that Council should make the necessary enquiries.

John SJC spoke on the matter of W.I.C.E.N. and the fact that although some 23 mobile t.v.'s have been released to date for the purpose of the trials of the W.I.C.E.N. It is only with difficulty that five or so active members can be coaxed on the air for the Sunday night roll-call, etc.

The meeting closed at the witching hour of 10.30 p.m., officially, but it goes without saying that it was never closed. Now I hope that this summary of the meeting is at least somewhere near accurate because I have an awful confession to make. I was not present at the meeting and I secured my information from the chairman. To tell the truth, my son-in-law twisted my arm until I agreed to agree to go fishing with him all day, and when I returned my XYL lifted me up and kissed me on the forehead, and said how tired I looked and perhaps I had better not go to the meeting. I really didn't want my duty to go, and I can honestly say that I meant it, but whilst waiting for the fourteenth course at dinner, I fell asleep and she carried me up to bed, tucked me in, put out the light and closed out the tent. I was very, very cross when I woke up the next morning, but what can one say when the old rolling pin is as handy? (Remember the old prover, Pansy, "DX Before Dishes!!—Edits.)

Heidi Joe 4WD and David 3DS in company came Sunday morning, but the two children were still in bed, so I had a long chat during which I extricated enough information about the S.E. gang to satisfy even me. Claude himself is down in the city on behalf of the Electricity Trust seeing how the big wheel goes round and all the fun for today is a highlight. He naturally has not been too active and managed to keep 4G alive; is in the throes of the re-build that will end all re-builds (famous last words), and has also managed to sell off his music in the city whilst here.

Erg 5JW is still keen on 14 Mc. and his w.s. signs can be heard calling the DX at all odd times. John 5JA is keen on the one-eyed monster than on Amateur Radio at the moment, but as he is interested from a business angle we can possibly pardon this lapse from amateurism. I wonder if too many of Leo 5WG is chasing the DX on 14 Mc. and is not

fan mail in the world. Nice to hear you Dave, hope we contact someday. Thanks for the "big" card, it's lovely. All the other cards are green with envy, especially Norm Cuthman.

Jim 5JB is a new one from Leigh Creek, which to the uninitiated is a low-cut coal mine to the North of Adelaide. He was a Command tx-modulator, feeding a random length aerial on 7 Mc. when I heard him. Welcome QSO to the band, you! Speaking of Leigh Creek reminds me that Tom 5AQ is still overseas but is expected back very soon. This will be two stations from up there, and although it will not be the Northern Territory, it is still a long way toward the North.

Looking idly through the new Cal. Book this week I got quite a shock to see the call of 5BYI jump out at me. I checked up to see if it was a recent monogram and it was a missprint and should read 5BYZ (Lance). I feel sure that good old Dougal would have been the first to wise-crack about this error in no uncertain fashion.

John 5JN is still the moment engaged in a mighty struggle for supremacy with the one-eyed monster—not on you, Rae, sit down. He is trying his hand at building a t.v. set and obviously enjoying it. Naturally, this mighty amateur leaves little time for his first love, Amateur Radio, but we have not lost hope as yet.

Charlie 5ON is still on with a good signal each Sunday morning. When he was surprised in QSO with Jim 5JO, but as Jim was surrounded by welders, sparking insulators, pole transformers blowing up and other sundry noise, I could appreciate it. Little one-sided. If the operator of the welding machine could have only heard Joe's description of those people that used welding machines on a Sunday morning, he would have gone immediately to his parents and asked several pertinent questions.

Hurtie 5HW apparently is well satisfied with 14 Mc. because he sticks to it like glue. In view of the fact that on the two occasions he was heard at my QTH he was in contact with UU3 and KI4, I wonder if I can't bring him in. Does 5MD is still following in the footsteps in Amateur Radio with his 3.5 Mc. code classes on Sunday nights, his disposal duties, his Council duties and also still bears the grand name of custodian of the instruments. He still leaves his leave in the evenings to attend at his guest house, but with more luck than judgment I am managing to elude the clutches of his minions! Only just, however.

Johnny ex-SKO is back in VK3 from VK8 and if rumours can be believed he is Postmaster-general, Premier, Minister of the Opposition or possibly Governor-General. You write, "with his usual perspic-purposeness—well, with his usual ability to nose out the facts, is pleased to announce that he has returned from the P.M.G. and is now the Production Engineer for SOTU. He has reserved the call SKO; he expects to be in a house before long and it goes without saying that he has been listening on his beloved 30 m.z. Now that he is no longer an R.L. it will permit him to do the things he wants to do." "Now it can be told." Space does not permit me to tell the full story now, but be sure to secure your copy of "A.R." next month and read the true story of how a courageous and astute member of the VK3 fraternity once succeeded in pulling the lion's tail, and got away with it.

There was a ring on the nuclear atomic carbon pile doorbell of the b.b.s. the other day and after a few moments of silence the best broadcasting station in the state, and when I pressed the talk-back button and said in my usual polite manner, "What do you want, mug?" a quiet well spoken voice said, "It's a carrier pigeon" and the words "Grabbing a handful of chest from the announced arrival" I rushed out to the door, and I have never seen a carrier pigeon look so much like Claude 5CR. Boy, was I glad to see him. Taking off his carrier pigeon disguise he came into the control room and had a long chat during which I extricated enough information about the S.E. gang to satisfy even me. Claude himself is down in the city on behalf of the Electricity Trust seeing how the big wheel goes round and all the fun for today is a highlight. He naturally has not been too active and managed to keep 4G alive; is in the throes of the re-build that will end all re-builds (famous last words), and has also managed to sell off his music in the city whilst here.

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assuming the mantle of Stuart SMS with regard to DX. SMS has switched his allegiance from 14 to 21 Mc. and can be heard calling the rare ones at odd times. Have a listen for my signal Stuart, quite a number of the local stations seem to tell me that my signal is exceptionally rare!

Col SJG has a casual contact on 40 now and again, but is by no means as active as he used to be. He came along to the meeting the last time he was down here and made a short speech on the present wireless situation. Tom SWT bobs up on 8 Mc. now and again, but he is another one that has slowed down a little on the air. He was going at top speed, however, when heard here in the R.D. Contest. How did he do? Tom Den SJG is in the process of getting up more calls on the air at the moment of writing, but if he doesn't hurry up we will have to alter his call to 5N6C. Oh, I can be witty when I like! The South East gang appear to be pretty keen, if the attendance at the recent meeting is any guide. A recent meeting took the form of an inspection of the new Mount Gambier auto-telephone exchange, and under the guidance of SJG the inspection was appreciated by all.

No news from the Central Coast gang either.

Recent news. Heard Wall SDF on the SWL call-back last Sunday, but as he said simply "Hello and goodbye," that was not much good, was it?

Ken SAL heard on 7 Mc. this month with a good signal. He is still the best on 7 Mc. in the North, but I have heard him occasionally on 35 Mc.

He is now living in one of the Adelaide suburbs and should be heard consistently now that the bus has turned again.

John SJC has the challenge in the VK5 L.C.M. news heard on 40 and 80 at odd times over the month, but any other activity on the air remains his secret.

John SJC, assisted by his XYL BETTY, is the father of a beautiful young daughter, this morning and all are doing well. Some doubt existed for a while as to whether or not John would recover, but as the medics said in an interview this week, "He had never lost a battle yet, and whilst John gave him a little anxiety at first, he is now a picture of health and worried."

We Amateurs are made of stern stuff.

Earlier I made mention that Tom SAQ was still overseas. As soon as he heard this he made a lightning dash by sea, land and air, and bobbed up on 40 at the call-back by SWI after the session. I have made the necessary arrangements to spy on him and the only thing that worries me is that once polly-waly the editor will possibly get the idea that this explanation is only another dodge to get more space in his excellent magazine. However, I think he knows me better than that.

There are old-timers and real old-timers in Amateur Radio, and I bumped into a real old-timer this month in the person of Lance Jones (6B4G). He was one of the original half a dozen, or so pioneers in VK5 or our grand old history, and still a member of the Council of the First and Best Broadcasting Station in VK, nones other than ADN, which I have the honour of being on the pay-sheet. Starting as an Amateur Station it has grown to be the power that it is in VK5 because of the enthusiasm of its technical staff, all Radio Amateurs and proud of it, although other factors have possibly been of some assistance. Ahem! Lance is looking fit and well and wishes to be remembered to all who may remember him, although not active and naturally lost his call sign, he still leans toward Amateur Radio as a hobby.

Comps SEF is heard occasionally on 40 at my location, but is apparently busy grinding grain. His brother is also busy grinding flour in an attempt to get his ticket at the next exam, and as this is being read probably now knows whether it was worth while or not. Best of luck OM.

VK5 has always been called the "City of Churches" and once it was called

by a disgruntled VK3 sub-editor named Flinco, the "City of Pubs." We in VK5 have our simple code of ethics and standards of behaviour, and it sometimes seems strange to others who do not come up to our accepted standards. Bearing this in mind, imagine my horror and disgust the other night when I heard with my own ears a certain VK3 announce to all and sundry on 40 that he had just sold his house and had a pile of chairs and junk, thus saving him the trouble and expense of squaring off the dustman when he called. Now how low can one get, the jeering chuckle that ended his confession so unconvincing that he have not yet been able to bring up his name to call book in order to unmask him to the world. I think that I am strong enough to check up now, so just a second whilst I turn the pages, VK5R—VK5AN—R. W. Higginbot-

OBITUARY

ATHOL W. JOHNSON, VK7AJ

It is with the deepest regret that we record the passing of Athol W. Johnson, VK7AJ, on September 8, 1959, after a long illness.

Athol, who was one of Tasmania's most progressive Amateurs, was first licensed in September 1947 and quickly gained recognition by his outstanding skill and technique. He was a regular competitor in v.h.f. work and was one of the few Tasmanian Amateurs who worked consistently on 2 and 6 mc. His car, which was originally equipped to work mobile on 40 mc, was soon re-fitted with 2 and 6 mc complete with a home-made antenna, the main antenna having with this equipment given him much satisfaction. His main station comprised an all-band tx and rx which worked in conjunction with rotary beams on 20, 16, 5 and 4 mc, and ground plane on 2 m. A 100-watt type and long wire which extended for approx. 1,000 ft. across the valley close to his home in Remondy St., South Hobart.

He was an exceptionally versatile man with many and varied interests. He was a highly skilled craftsman and his exceptionally well equipped workshop contained many items of his own design and construction.

Although confined to his bed for much of his time in recent years, he managed to keep in close touch with Amateur Radio via a bedside set. His vigilance on frequencies outside the Amateur bands brought many interesting reports, notably one received when he was last active on Jan. 8, 1958, in bringing about the rescue of the luxury motor cruiser "Corsair III," which was in difficulties off Beechey Head, N.S.W., with engine trouble and was in danger of sinking. Many distress signals were first heard by Athol who immediately alerted the O.T.C. staff at Hobart with the result that this vessel and its crew were all saved.

Athol was an enthusiastic member of the Tasmanian Division of the Wireless Institute of Australia and took an active part in all its activities. He was a member of the Council for four years and was also v.h.f. officer and Federal Councillor. He gave many lectures on the various aspects of amateur radio and was characterized by a thoroughness of preparation and were given in a clear and concise manner. The many practical tips given as a result of his own experience were an outstanding feature.

As a man, Athol possessed a most likable disposition with a ready smile and a sense of humour. He never failed to help those who turned to him for assistance with their technical problems. One of his most outstanding qualities was the courageous fight which he put up against his long illness. His fighting spirit in this regard is one of those rare and wonderful examples of a dogged determination in the face of a relentless malady. His uniformly passing was a severe blow to all who knew him. To his widow and daughter we extend our heartfelt sympathy in their sad bereavement.

R. W. Hig-R. W. Hig-BLIME: Oh well, I suppose that there is always two sides to every question, and I don't think that any dustman should be given radio parts. Ethics and standards can be stressed too much, and after all, Editors must have some privileges not granted to us lesser mortals. Perhaps, I think it was a wonderful thought to give the s.w.l.s a gift and probably saved the dustman some hard work, and without doubt such a fine, generous, kind-hearted, upstanding chap like that would tend to the right thing as a natural reaction. FHEW! —

TASMANIA

We extend our best wishes to Alex TAX, Chairman of the Federal Contest Committee, who has been on the sick list for some time now; a speedy recovery, Alex. The Contest Committee, together with a band of helpers, have been very busy with the preparation of the remembrance Day logs, since about the middle of September. Their task in this particular Contest should soon be over, and our thanks are due to them for their considerable efforts on behalf of Amateur Radio. In this connection, this Division has grounds for satisfaction because of the return of 67 contest logs out of the 68 stations which took part. Never before has the return of logs been such a high proportion of the number of stations taking part.

At the time of writing, the phone section of the VK/ZL Contest is over, and I would say that conditions were as bad as they have ever been during the course of the VK/ZL Contest, and the semblance of a DX signal. For only about two hours were signals audible and then only with considerable QSB and QRN.

Charlie TKS is now v.t.a. controlled and has a monitor in service. Shirley TCK and yours truly must now be only c.w. men left now. Jim TJO will soon be domiciled in Hobart, so our gal will certainly be Devonport's loss. Welcome to the big smoke, Jim.

Bob TOM has been resident in ZL for most of September and the first half of October. I hope that all is well with him. Dick TJB is quite active on all bands since the removal of the power noise about the end of September. Keith TRX has a 122 set in operation and would appreciate any reports on its operation, particularly from a distance.

Stereo is now all the rage with the records of the likes of Webb, Webb, 77P, with his desire to show you how cabinets to house such nice equipment should be made, good work Myles. The time and weather for trying out your portable gear will soon be upon us, and the W.I.C.N. not happy to have such an exercise either in November or December, so get your portable rigs ready chaps.

NORTH WESTERN ZONE

Time marches on. The most important item of interest to report this month is that about half a dozen of our associates have been shot for the A.O.C.P., and I feel sure that everyone will wish them the best of luck. More QRM I suppose in the not too distant future. More participants for the R.D. Contest next year.

Our October meeting was held on the 5th and I regret to say was very poorly attended indeed. With exams over for associates we look forward to a much better attendance next month. We hope an eventual member in the person of Athol Burk will welcome and be made most welcome to the United. The meeting's business was disposed of, interspersed with several interesting and enlightening discussions which I think frayed out several members whilst others were left in abeyance awaiting further natural development. Some quite useful pieces of equipment were disposed of by auction.

I do believe we are losing Jim TJO to the Southern end of the island. Myles MN5 sneaked down South from up here, and was staying with his son Peter TPK, look out himself on the Launceston area. I sincerely hope no more of our members decide to leave us for a while at least, until we have patched up our ranks once more.

Frank MN5 got himself a really big power transformer and is at present working out means by which he can get himself some really high high-tension from it with the minimum outlay in db. Yours truly still hasn't done any more to the new rig and deriving great enjoyment having quiet QSOs with it.

That's all for now Tuesday and the W.I.C.N.

net are still functioning OK with the regular

few holding the fort. How about a few more joining in, especially on the Tuesday night rally.

It won't be long now before we start

tx hunts again chaps, so it wouldn't be a bad idea if you sorted out the d.f. gear once more.

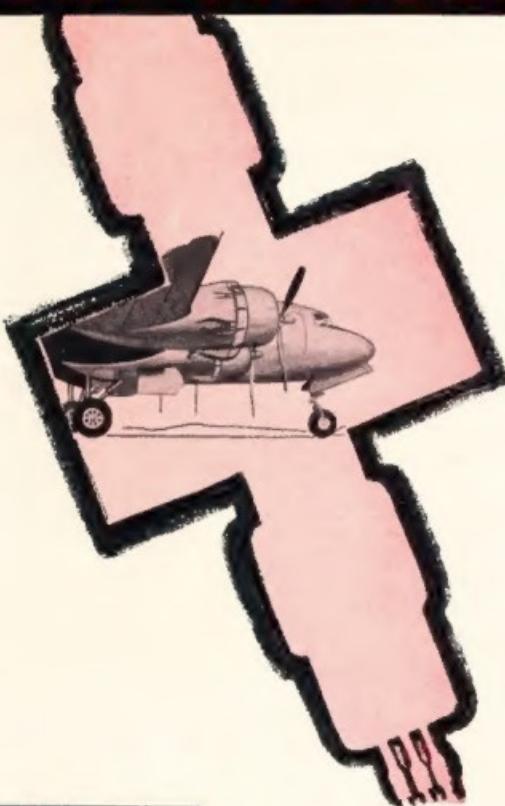
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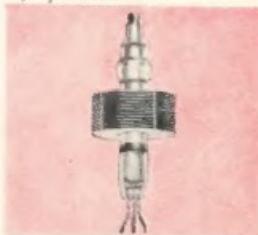
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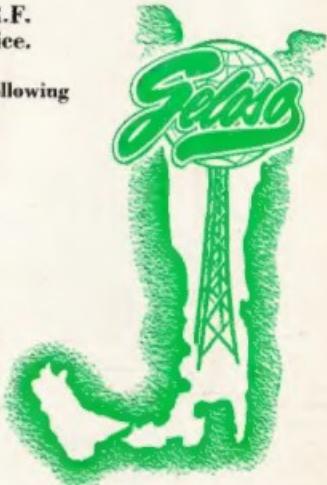
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